

NATIONAL FLOOD PLAIN REMAPPING: THE PRACTICAL IMPACT

(110-108)

HEARING

BEFORE THE

SUBCOMMITTEE ON
ECONOMIC DEVELOPMENT, PUBLIC BUILDINGS, AND
EMERGENCY MANAGEMENT

OF THE

COMMITTEE ON
TRANSPORTATION AND
INFRASTRUCTURE
HOUSE OF REPRESENTATIVES

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CONTENTS

	Page
Summary of Subject Matter	vi
TESTIMONY	
Boozman, Hon. John, a Representative in Congress from the State of Arkansas	5
Ehlers, Hon. Vernon J., a Representative in Congress from the State of Michigan	5
Hall, Hon. John J., a Representative in Congress from the State of New York	5
Larson, Larry A., Executive Director, National Association of State Flood Plain Managers	37
Matsui, Hon. Doris O., a Representative in Congress from the State of California	5
Maurstad, David, Assistant Administrator, Mitigation Directorate, Federal Emergency Management Agency	17
Miller, Hon. Candice S., a Representative in Congress from the State of Michigan	5
Sterman, Les, Executive Director, East-West Gateway Coordinating Council, St. Louis, Missouri	37
Stockton, Steven, Deputy Director of Civil Works, United States Army Corps of Engineers	17
PREPARED STATEMENT SUBMITTED BY MEMBERS OF CONGRESS	
Altmire, Hon. Jason, of Pennsylvania	45
Hall, Hon. John J., of New York	46
Norton, Hon. Eleanor Holmes, of the District of Columbia	48
Oberstar, Hon. James L., of Minnesota	51
PREPARED STATEMENTS SUBMITTED BY WITNESSES	
Larson, Larry A.	55
Maurstad, David I.	63
Sterman, Les	68
Stockton, Steven L.	71
SUBMISSIONS FOR THE RECORD	
Maurstad, David, Assistant Administrator, Mitigation Directorate, Federal Emergency Management Agency, responses to questions from Rep. Arcuri ...	25
ADDITIONS TO THE RECORD	
County of Merced, California, Paul Fillebrown, Director of Public Works, written statement	80



U.S. House of Representatives
Committee on Transportation and Infrastructure
Washington, DC 20515

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March 27, 2008

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SUMMARY OF SUBJECT MATTER

TO: Members of the Subcommittee on Economic Development, Public Buildings, and Emergency Management

FROM: Subcommittee on Economic Development, Public Buildings, and Emergency Management Staff

SUBJECT: Hearing on "National Flood Plain Remapping: The Practical Impact"

PURPOSE OF THE HEARING

On Wednesday, April 2, 2008, at 10:00 a.m., in room 2167 Rayburn House Office Building, the Subcommittee on Economic Development, Public Buildings, and Emergency Management will examine the practical impact of the Federal Emergency Management Agency's ("FEMA") Flood Map Modernization Program.

BACKGROUND

National Flood Insurance Program

The National Flood Insurance Program ("NFIP") was created by Congress in 1968 as a Housing and Urban Development program. This program called for the Federal Government to promote the public interest by providing help to cover costs of flood damages. Further, the NFIP promotes the public interest by encouraging sound land use by minimizing exposure of property to flood losses. Although the NFIP is sponsored by the Federal Government, private insurance companies sell policies to individual homeowners and service their claims. More than 90 private insurance companies sell and service NFIP policies.

The most significant provisions of the NFIP for homeowners and communities are:

1. All federally backed mortgages require flood insurance to be carried on properties located in the 100-year flood plain (or one percent flood risk);
2. Flood insurance policies can only be issued in communities that have adopted certain land use and building regulations that prohibit most development in the 100-year flood plain and/or require new developments to locate the first floor of new structures above the 100-year flood level (or base flood elevation ("BFE"));
3. Communities that do not participate in the NFIP and are in flood plains risk not being eligible for most forms of disaster assistance.

More than 20,000 communities, representing 98 percent of the U.S. population, participate in the program, producing over 100,000 map panels. According to FEMA, there are currently approximately 5.5 million flood policies totaling more than \$1 trillion of insurance coverage. A portion of the insurance premium is set aside to update flood maps.

Flood Maps

Floods are among the most common disasters to take place in the United States. The Federal Government works with local governments to identify flood hazards and make maps that characterize the risk associated with flooding. The NFIP directs FEMA to establish the appropriate flood risk zones, reflect these determinations on flood maps, and establish mapping standards. The risk zones use a 100-year flood plain as the regulatory standard that mandates coverage in the NFIP. A 100-year flood represents a one percent chance of a flood happening in any given year. The risk associated with any flood plain is based on a statistical analysis of such things as historical records of water heights, rainfall, soil conditions, infrastructure, and drainage systems. After enactment of the 1968 flood insurance program, the Federal Government, in cooperation with state and local governments, quickly mapped the flood hazard zones for most of the country.

FEMA's Map Modernization Program

In 2003, FEMA initiated an effort of approximately one billion dollars over five years to modernize the often outdated or flawed 1968 flood maps. Flood maps require updating because there are often physical changes to the topography, increased runoff from upstream development, improved statistical analysis, and changes to records and data that warrant revision to existing maps.

FEMA receives roughly \$200 million annually from appropriations and insurance premiums to update and modernize the existing flood hazard maps. In addition, according to FEMA, some states such as Florida and North Carolina are contributing state funds to produce extremely accurate digital topography maps, which can then form the basis of more accurate flood maps. FEMA prioritizes the map modernization program by first updating the flood maps from the highest hazard areas.

Levees

An important part of the FEMA flood map modernization program is an assessment of the protection provided by levees. For FEMA to consider the protection provided by a levee in the flood mapping process, the levee must be certified to provide protection against a 100-year flood (one percent flood risk). In general, there are two certification standards for levees.

1. The NFIP standards require the tops of levees to be three feet higher than the one percent flood level;
2. The U.S. Army Corps of Engineers may also certify some levees based on engineering reviews of the levee and flood risk.

According to FEMA, if a levee is not certified according to NFIP standards or by the U.S. Army Corps of Engineers, then FEMA must map the flood plain as high flood risk that requires flood insurance. Levees are present in more than one quarter of the counties being remapped.

PRIOR LEGISLATIVE AND OVERSIGHT ACTIVITY

The Subcommittee on Economic Development, Public Buildings, and Emergency Management has not held any hearings on the FEMA mapping program in the 110th Congress. However, on a related topic, the Subcommittee held a joint hearing with the Subcommittee on Water Resources and Environment on “National Levee Safety and Dam Safety Programs” on May 8, 2007. On October 18, 2007, the Committee on Transportation and Infrastructure reported H.R. 3224, the “Dam Rehabilitation and Repair Act of 2007”, to the House. The bill establishes a program to provide grant assistance to States for the rehabilitation and repair of deficient dams. On October 29, 2007, the House passed H.R. 3224 by a vote of 263-102. The Senate has not taken action on the bill.

WITNESSES

The Honorable Vernon J. Ehlers
Member of Congress
Michigan, District 3

The Honorable John Boozman
Member of Congress
Arkansas, District 3

The Honorable Candice S. Miller
Member of Congress
Michigan, District 10

The Honorable Doris O. Matsui
Member of Congress
California, District 5

The Honorable John J. Hall
Member of Congress
New York, District 19

Mr. Steven Stockton
Deputy Director of Civil Works
United States Army Corps of Engineers

Mr. David Maurstad
Assistant Administrator, Mitigation Directorate
Federal Emergency Management Agency

Mr. Les Sterman
Executive Director
East-West Gateway Coordinating Council
St. Louis, Missouri

Mr. Larry A. Larson
Executive Director
National Association of State Flood Plain Managers

Mr. Chris Smith
President
District of Columbia Building Industry Association (DCBIA)

HEARING ON NATIONAL FLOOD PLAIN REMAPPING: THE PRACTICAL IMPACT

Wednesday, April 2, 2008

HOUSE OF REPRESENTATIVES
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE,
SUBCOMMITTEE ON ECONOMIC DEVELOPMENT, PUBLIC
BUILDINGS, AND EMERGENCY MANAGEMENT,
Washington, DC.

The Subcommittee met, pursuant to call, at 9:00 a.m., in Room 2167, Rayburn House Office Building, the Honorable Eleanor Holmes Norton [Chair of the Subcommittee] presiding.

Ms. NORTON. Good morning. The Subcommittee welcomes all of our witnesses this morning. We extend special greetings to our colleagues from the Transportation and Infrastructure Committee who will testify. They have been deputized, as it were, by their local communities to bring us straight-from-the-field the information the Subcommittee needs to evaluate just how the new Federal flood mapping will work on the ground.

The need to engage in hazard prevention cannot be doubted; floods are the most common hazards in the United States. Right now Midwest communities are being ravaged by floods. Flood effects can be local, affecting a neighborhood or community, or they can ravage entire river basins and multiple States. The flooding produced by Hurricane Katrina alerted the Nation to the possibility of unanticipated devastation, even in areas accustomed to severe flooding.

Flood hazards exist in all 50 States and here in the District of Columbia. They are especially common in low-lying areas, near water or down stream from a dam. It is not uncommon to see small streams or low-lying ground that appear harmless in dry weather become flooded after a heavy rain or significant snow fall. Nevertheless, many raise the legitimate question whether wholesale national remapping based on essentially a one percent chance of severe flooding is worth the time and expense. This is one of the questions we will raise in this hearing this morning.

However, the remapping function certainly did not originate with Hurricane Katrina. The National Flood Insurance Program, or the NFIP, began in 1968, with the National Flood Insurance Act to control devastation incurred from floods nationally. Although the program started in HUD, the Federal Insurance Administration moved to FEMA when it was created in 1979. The program is now part of the Mitigation Division at FEMA. FEMA is the natural and appropriate home for this program because floods are the greatest natural hazard faced annually by communities.

The NFIP works hand-in-glove with FEMA'S efforts in disaster preparedness, recovery response, and mitigation. The program offers incentives to help communities identify and reduce flooding hazards, and to take steps to mitigate the damage to property and the risk of loss of life. When a community agrees to adopt and enforce floodplain management ordinances, particularly for new construction, the Federal Government makes flood insurance available to homeowners and to business owners.

FEMA estimates that floodplain management measures prevent \$1.4 billion in property losses annually, and today 98 percent of the Country, including up to 20,000 communities, is covered by the flood insurance program. The program provides about 5.5 million policies with over a \$1 trillion dollars in coverage. Approximately 90 companies sell flood insurance policies on behalf of FEMA. The point of all of this is to reduce the need for Federal disaster assistance under the Stafford Act.

The Subcommittee is well aware that flood hazards change with time because of physical changes in topography caused by wildfire, erosion, and infrastructure construction and the like. We also are painfully aware that floods can cause levees to fail. Hurricane Katrina all but bequeathed the current flood mapping effort to the Nation. We do not doubt that the FEMA remapping is timely or that the Corps of Engineers effort is essential. However, necessity is not always the mother of invention. Communities must be convinced of both the risks and the benefits.

Time for communities to do the necessary work must be realistically assessed and granted. The question concerning expense and whether the remapping requirements constitute an unfunded mandate must be answered. The actual effect on Federal-backed mortgages and on eligibility for Federal disaster assistance must be described. Requiring the costs mandated by flood remapping in the midst of the most serious downturn in the economy in years must be justified. Not only explaining the remapping process itself, but answering questions such as these are what hearings are for.

The Subcommittee has much to learn from the Members whose districts are affected by the new remapping effort who will testify today; from FEMA and the Army Corps of Engineers officials who will explain the how and why of the process; from experts; and from witnesses who can express the views of local communities and business. The Subcommittee greatly appreciates the testimony of all of the witnesses who will testify this morning.

Thank you, and I am pleased to ask the Ranking Member, Mr. Graves, if he has any opening remarks this morning.

Mr. GRAVES. Thank you, Madam Chair. Let me also thank our witnesses for being here today. I look forward to hearing the testimony on obviously the modernization of FEMA'S flood hazard mapping program. In particular, I want to thank the distinguished colleagues on our first panel for taking the time out of their busy schedules, obviously, to be here today. You are providing testimony on the practical impact of FEMA'S flood hazard mapping program, what it has on your congressional districts, and I think this is an important issue to our constituents and, for that matter, to all property owners.

I have personally seen the impact of flooding and the impact it has on lives and property due to the recent floods in Missouri and other parts of the Midwest. Over 70 counties in Southern and Central Missouri were affected by the flooding that occurred just at the end of March. This is only the most recent flood event to impact the State. Over the past three months, flooding has taken a great toll on the State of Missouri, resulting in three Federal disaster declarations.

Floods are one of the most common hazards in the United States, and currently the United States averages about \$2.4 billion in annual flood losses. Recognizing the impact floods have taken on lives and property, Congress created the National Flood Insurance Program in 1968. The program was intended to make insurance available to cover flood damages and promote sound land use by minimizing exposure to flood losses and to get people out of harm's way. To carry out this program, the Federal Government worked with local governments to identify and map flood hazards. Today, 20,000 communities participate in the program and 100,000 hazard flood map panels have been created.

Since fiscal year 2003, FEMA has undertaken an effort to modernize these 40-year-old flood maps because of physical changes to topography such as erosion or new development, updated data such as rainfall records, and better technology. The accuracy of flood maps is of the utmost importance to the communities affected. Accurate maps are needed to strike a balance between protecting communities from the devastation caused by flooding and ensure that community growth and development is not overly constrained. Without accurate flood maps, some homeowners may be paying too much for flood insurance, while others may not purchase flood insurance at all because an inaccurate map shows that their property is obviously outside of the floodplain.

Because of the great impact on communities covered by the maps, FEMA must be responsible to community concerns. Additionally, FEMA must provide a quick and effective way to appeal mapping determinations in order to strike balance and ensure accuracy. I know FEMA is trying to get it right. This is too important not to be able to get it right.

Again, I want to thank all of our witnesses for being here today. Your testimony is going to help us better understand the practical impact of FEMA'S map modernization program and determine whether FEMA has attained the proper balance in implementing the program.

Thanks, Madam Chair.

Ms. NORTON. I ask unanimous consent that Mr. Costello and Mr. Higgins be allowed to sit with the Subcommittee. Without objection, so ordered.

May I ask if any of the Members have statements of their own? Mr. Costello?

Mr. COSTELLO. Madam Chair, thank you. And I thank you for calling this important hearing today. I see that we have a distinguished panel of members before us, so I will only make brief comments and ask unanimous consent that my full statement be entered into the record.

Madam Chair, thank you for calling the hearing today. I welcome our witnesses and I am pleased that one of our witnesses on the next panel is Les Sterman, from the Regional Council of Governments in the St. Louis Metropolitan Area. I think you will hear testimony from him that relates to my concerns with the program.

As you know, in 2004, FEMA embarked on a map modernization program. It is an important program; it allows us to take advantage of revised data to help local officials and citizens have the ability to better plan for flood-related disasters, so I support the program. However, I have grave concerns with the piecemeal approach that FEMA is using and pursuing at this time.

For example, in the St. Louis Metropolitan Area, preliminary maps will be available for review this summer for the Illinois side of the Mississippi River. But it may be three years before the maps are available on the Missouri side of the River, even though both sides of the River share the same floodplain and the same watershed. Why? Because FEMA, the regional office, for instance, covering Illinois is pursuing the matter of the mapping process much sooner than the regional office that covers the State of Missouri.

While I support the map modernization program, I oppose this piecemeal approach. I believe that the flood modernization map for a floodplain or a watershed should be implemented for the entire floodplain or watershed at the same time.

The Corps of Engineers follows watershed boundaries, not State boundaries. I offered an amendment to H.R. 3121, the Flood Insurance Modernization Act, when it passed the House. And let me say that that amendment basically says to FEMA they would be required to implement maps for the entire floodplain and watershed, as opposed to the piecemeal approach that is currently being followed.

Again, Madam Chair, I thank you for calling this hearing today, and I look forward to hearing from our witnesses.

Ms. NORTON. Mr. Higgins.

Mr. HIGGINS. Thank you, Chairwoman Norton and Ranking Member Graves, for allowing me to speak today.

The National Flood Insurance Program is, both in its design and execution, the worst Federal program that I have encountered in my time at the United States House of Representatives. The once vibrant neighborhoods in Buffalo and Lackawanna, New York, in which flood insurance is mandated are effectively economic dead zones because this program provides perverse disincentives to home ownership and to home improvement which, over decades, have effectively turned whole swaths of formerly vibrant urban neighborhoods into virtual ghost towns.

It is my contention that the financial basis of this program is unsustainable and unjustifiable. It has a payer-payee structure in which many communities across America pay this mandatory flood tax and see no benefit, with just a few communities realizing assistance. In order to demonstrate this payer-payee relationship, I am, today, submitting to Acting Administrator Maurstad a request for a national county-by-county breakdown of the amount paid into and out of the program in the past 10 years.

Unfortunately, the map modernization process being undertaken by FEMA, which is the subject of this hearing, only tinkers at the

edges of this program, instead of addressing its fundamental flaws. In Buffalo, while some communities received relief from the map modernization, FEMA now proposes to include the historic old First Ward neighborhood in this economic dead zone for the first time, a neighborhood which has stood since the Civil War, which has never seen the type of flooding that would result in payments from the Flood Insurance Program.

After I have received the data from FEMA regarding the payer-payee relationship, I will forward it to the Committee for your review and consideration. And I thank you once again, Chairwoman Norton, for allowing me to participate in this hearing.

[Information available, as submitted for the record by FEMA, through Subcommittee office.]

Ms. NORTON. Thank you very much, Mr. Higgins.

Now we will proceed to our Congressional witnesses. I will just go from left to right.

Mr. Hall?

TESTIMONY OF THE HONORABLE JOHN J. HALL, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW YORK; THE HONORABLE DORIS O. MATSUI, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA; THE HONORABLE VERNON J. EHLERS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MICHIGAN; THE HONORABLE JOHN BOOZMAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ARKANSAS; AND THE HONORABLE CANDICE S. MILLER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MICHIGAN

Mr. HALL. Thank you, Madam Chair, Ranking Member Graves, Members of the Committee, for holding this hearing and for inviting me to testify about an issue of vital importance to towns and cities throughout the Country.

I would like to begin by noting specifically that I am glad the Committee has chosen to title this hearing National Floodplain Remapping: The Practical Impact, because if there is one point that my testimony would make to the Committee today, I hope that it is that this process will have a real and significant impact on the daily lives of people in my district and elsewhere.

The results of this process will impact the value of people's homes, the cost to maintain them, and the fate of homes and businesses unfortunate enough to be affected by future floods.

As we have seen in recent years, extreme weather events are occurring with alarming frequency. Too often, these events create flooding that leaves homes battered, businesses reeling, infrastructure broken, and communities devastated.

My district in New York's Hudson Valley has been far from immune. Floods have had an incredibly destructive impact in the Hudson Valley, and in recent years the flooding has become so frequent the town supervisors, farmers, and homeowners have every reason to look over their shoulders or up at the skies every time it drizzles.

The region has experienced three 50-year floods in this decade alone. That rate of activity strains the ability of emergency services

to respond, communities to recover, and local resource managers to prepare.

The full force of flooding impacts became evident a year ago, during last April's nor'easter. The rains only lasted a weekend, but the damage is still being repaired. Roads were washed out, fields submerged, homes and businesses were damaged. After those storms, FEMA made a disaster declaration, opening the way for assistance. But it is clear that we need more than an ad-hoc approach to prevention, mitigation, and recovery.

Unfortunately, recent history and the forces of climate change leave us with too much uncertainty to simply hope that these events are anomalies that will soon be rendered only as historical quirks or Weather Channel trivia. It is clear that our Government must take steps to be prepared for future events.

One of the most challenging consequences will be the modernization of the National Flood Insurance Program and the update of the National Floodplain Map. As FEMA moves forward with this process, it must take a methodical, comprehensive approach that will be effective, fair, and avoid undue costs to taxpaying homeowners.

A large part of this process should be the provision of avenues for communities, particularly those that will be newly included in the floodplains, to voice their concerns or their protest with FEMA without undue burden.

Several communities in Orange County, New York would be included in the floodplain map and forced to purchase insurance for the first time under the preliminary Flood Insurance Rate Map regarding Base Flood Elevations within Orange County, New York. The data needed for the appeal of a draft would require hydrologic and hydraulic studies that must be paid for by individual homeowners or local governments.

Despite the highly technical and costly nature of these studies, FEMA allows only a 90-day comment period. Now, 90 days might be a standard window here in Washington, D.C. for Federal officials, but for homeowners in my district who are already struggling with property taxes and small towns with limited expertise, that is a fast turnaround.

Although FEMA has since informed my office that the review process in one of my cities will allow other communities to register protests until late May, these procedures are hard to navigate and need to be made more accessible to the stakeholders who will have to live with the impact of the new floodplain map on a day-to-day basis. In either instance, it would not be feasible to finance and conduct these studies before the current public comment deadline.

I am not suggesting that towns and cities should be able to skirt inclusion in the floodplain if it is truly warranted, but if there are local concerns that inclusion is unjustified or detrimental, it should be easier for communities to make their case to FEMA directly.

Efforts to update the National Flood Insurance Program are right to account for changing circumstances, and the new maps should take prospective factors into account. Specifically, the human factor of local growth and the environmental factor of climate change must be taken into account. Both will directly impact flood activity in the my district.

Orange County, New York is one of the fastest growing areas in New York State. We are proud that more people are choosing to make the county their home and are working hard to manage the development that their presence requires. The region is also blessed with abundant streams and rivers that may exhibit changing characteristics as sea levels, precipitation activity, and other factors relating to our changing climate develop.

As FEMA moves forward, it needs to find ways for the new flood map to recognize the need for growth and extend protection to vulnerable communities in order to prevent the blessing of our water resources from becoming a curse.

I thank the Committee and the Chair for examining this issue and look forward to working with my colleagues, FEMA, and the Army Corps of Engineers to ensure that FEMA has updated the National Floodplain Map as responsible, effective, and in the national interest. Thank you, Madam Chair.

Ms. NORTON. Ms. Matsui.

Ms. MATSUI. Thank you, Madam Chair and Ranking Member Graves, for convening this hearing. Since coming to Congress, flood protection has been one of my top priorities.

My district sits at the confluence of two great rivers. Sacramento is considered to have the highest flood risk of any major metropolitan city in the United States. More than 440,000 people, 110,000 structures, the capital of the State of California, and up to \$58 billion are at risk.

Yet, my district has truly been a positive poster child in its efforts to bolster our flood control system since our near-catastrophic flood in 1986. We have investigated our levees, planned our projects, assessed ourselves millions of dollars, pushed our State to be a full partner, and begun to build projects that would get us to a greater than 200 year level of protection. In fact, our latest assessment commits over \$400 million of local dollars to this effort. We are fully committed to flood protection.

I am very proud of the flood control work we have accomplished. We know we still have a long way to go, but what we don't need at this point is to have the rug pulled from under us. That leads me to why we are here today: to discuss where our national flood control policy is and where it is headed.

Specifically, I would like to discuss what the Corps of Engineers has proposed to use as its new standard for levees, as written about in the Draft Engineers' Technical Letter first published or released in 2007.

I think we can all agree that it is important to set robust standards when it comes to public safety. I am concerned, though, with the Corps proposed levee standard. Not because I don't want greater public safety for everyone who lives in the floodplain, but because we may not be addressing our biggest problem when it comes to flooding. This new standard creates a goal for us that is so far off the chart it is unobtainable. We must maintain the trust of our local communities, communities that are investing their hard-earned dollars, their time, and their future goals. We cannot put the brass ring out of reach.

I understand that the historical data of a floodplain is not enough. In order to compute a watershed's flood frequency analysis

to estimate the risk it faces, you must also use probabilities. And depending on what probability theory you use, a watershed could have greatly different flood threats. So if you are proposing a change to methodology being used for levee standards nationwide, we must be extremely careful to get it right.

The problem I see is that we are setting the bar for communities in the floodplain and leaving it up to them to best figure out how to mitigate for that risk. I am not a flood engineer, but I understand that the Corps is proposing to use a method of analysis often referred to as a Monte Carlo simulation. It may just be a name, but any method with a label like that needs to be greatly scrutinized.

I am also concerned that by using this new standard we may, in actuality, be holding communities to different standards. The Midwest communities that contend with the wide and massive Mississippi River have very different watersheds than in the West; their levees are set back, their floodplains are much larger, they often have days of warning when a flood is coming. In Sacramento's watershed, we have a Sierra snow pack that can melt quickly and, in some cases, give floodplain residents only a couple hours warning of a flood. Our levees are a result of the gold rush and are built immediately adjacent to the river. And then we have the warm coast that can make our weather patterns change rapidly. So I am concerned that a universal approach will not recognize these very significant regional differences.

If getting communities the highest level of protection in the quickest time possible is our goal, we also need to localize some of this policy. Specifically, the 408 permit process. By allowing the local core districts to approach 408 permits so that work can be done quickly to upgrade levees, a commitment to public safety will also be demonstrated.

We need to get Federal flood control policy right because communities such as mine are paying a huge price. I know FEMA'S goal in remapping is to make communities safe. We can all agree that public safety is the number one priority. But unless we accurately estimate the threat, our communities will pay huge economic consequences without getting additional safety. Also, I worry about people on fixed incomes and their ability to meet flood insurance requirements. Even if the annual payment could be broken up in two installments, it would be much easier. My point is we need flexibility and we need to get it right.

The good news is that we know how to fix our flood protection problems and make the city safer, from strengthening our levees to the Joint Federal Project at Folsom Dam.

I don't want all good work we are doing to be wasted. We must have obtainable standards, standards that recognize regional differences in flood protection and floodplain analysis. Public safety needs to take precedence across the Country and new standards must allow communities to actually achieve measures that will allow them to be safe.

I want to thank the Subcommittee for allowing me to be here and looking into this important issue. I thank you very much.

Ms. NORTON. Thank you very much, Ms. Matsui.

Mrs. Miller.

Mrs. MILLER. Thank you, Madam Chair and Ranking Member Graves and Members of the Subcommittee. I certainly appreciate the opportunity to come here and testify on this very important hearing, I believe, on FEMA'S flood mapping program, and actually for many of the same reasons that other areas of the Country are expressing concern. This issue has also impacted my constituents in a very negative, I think, and unfair, unjust way.

FEMA, of course, is currently doing what the Congress has directed them to do, and that is to update and modernize the flood maps across the entire Nation. We all recognize that with new technology we can and we should update the maps to reflect our very best science and to convert existing outdated maps into user-friendly digital format which will account for property development and growth over the past several decades, as well as changes that we find in the topography. And I want to make it clear that I absolutely do support this very important work.

However, property owners in the Great Lakes area are being treated very unfairly by these new maps, which have taken effect in my district, actually, in the past several years. The net impact is that we can show how these property owners all throughout the Great Lakes Basin, actually, whose properties very rarely flood, nor have the potential to flood, are being treated unfairly. In fact, they are being abused by the National Flood Insurance Program. My constituents are paying very, very high flood insurance premiums, and yet we very rarely receive claims.

Let me just give you an example of the disparity that I am trying to address. In regards to FEMA'S proposal for remapping in the Great Lakes region, they are basing raising the base flood elevation an additional 14 inches, they say, FEMA says, to accurately reflect the risk of flooding. This is predicated, however, on data from 1988, which was two years after the highest lake levels ever recorded in the Great Lakes.

In Lake St. Clair alone, which is a small lake between Lake Huron and Lake Erie, the lake levels have dropped over three feet since then and are now five and a half feet below the current base flood elevation. In fact, over the past 20 years, the lakes' average have dropped 11 times and, most importantly, if you really want to look at historic averages, the lake level has only changed an average depth of about six inches a year. In spite of all of this, FEMA'S new base flood elevation is now six and a half feet above the current lake level.

While FEMA has gone about implementing these new maps, the International Joint Commission, also known as the IJC, which is an independent binational organization established to help prevent and resolve disputes relating to the Great Lakes, has undertaken a five year study examining issues that affect water levels on the Upper Great Lakes. This is going to be the most comprehensive and advanced lake level study ever completed.

While certainly we can all agree that using sound science in very important, in this instance, when hundreds of millions of dollars are going to be assessed against property owners, the most prudent course of action, I believe, is to wait until the IJC has an opportunity to complete this study. In fact, let me mention that another Subcommittee of the T&I Committee, the Water Resources, is going

to be holding a field hearing in several weeks in Green Bay to study the low lake levels in the Great Lakes.

However, my constituents currently are paying much higher premiums for an insurance plan that they will likely never ever file a claim on. And the practical impact of these new maps on my constituents has been to simply raise their flood insurance premiums, costing them literally millions of dollars, again, at a time when the lake levels are at a historical all-time low. This means that they are not going to be making claims, but they will be subsidizing other parts of the Country, because what is happening is that many States and their property owners, with little risk of flooding, who have experienced little or no flooding, are funding the National Flood Insurance Program at very, very high rates.

Between 1978, the year the National Flood Insurance Program began, and 2002, there were 10 States that received more in claims than what they paid in policies, in fact, over \$1.5 billion more, and the average premium for policyholders in those States was \$223. Michigan, on the other hand, paid almost \$120 million more into the program than it received back in claims, and yet the average premium for people in Michigan was \$257. This is a very common element throughout the Great Lakes States: higher premiums and lower claims than the States who, year after year, are taking advantage of the floor insurance program.

And I believe that what is going on is that Michigan and other States are sort of being forced to subsidize those who live in other States that have repeated floods, and, really, if this is what we are going to do as a Nation, we should call it what it is, I think, because we are always going to step up as a Congress and help areas that are having natural disasters. Then we should have a national catastrophic fund, as opposed to what we have right now, where you have some States subsidizing others. In fact, if the situation continues as it is, it is my intention to contact our governor and our insurance commissioner and suggest that Michigan should opt out of the National Flood Insurance Program and actually self-insure.

And one thing I will say, in Michigan, we actually look down at the water; we do not look up at the water. Let me just close by giving you one experience of one county in my district, St. Clair County. This is a small county. They have actually subsidized this program to the tune of \$8.5 million. So you can interpolate that across the entire State. At the same time, this is a county that has about a 15 percent unemployment rate at this current time. So here we are with all of these higher flood insurance premiums that is happening.

But I really appreciate the Committee allowing me to testify on this. I certainly look forward to continuing to work with all of my colleagues to bring both fairness and reasonableness, as well, back to the National Flood Insurance Program. Thank you very much.

Ms. NORTON. Thank you very much, Mrs. Miller.

Mr. Boozman.

Mr. BOOZMAN. Thank you, Ms. Norton, Mr. Graves for your leadership and holding this very important hearing on the National Flood Plain Remapping process.

I believe as strongly as anyone that FEMA flood maps should be modernized and accurate. However, communities in my district have been exposed to a confusing and unclear process that has failed to address their questions and concerns in a clear and consistent manner. Also, they have been subjected to a timetable for compliance that seems both arbitrary and unrealistic, given the circumstances.

These failures are not for a lack of effort or communications from the dedicated folks at the relevant Federal agencies. Rather, the process is problematic because our communities are traveling through uncharted territory as they navigate this process. While there are several aspects of this process that are challenging for our communities, I will focus my brief remarks on just one relevant issue: the assessment of flood protection provided by levees and how levees are certified for inclusion on the modernized FEMA flood maps.

Let me provide you one example of such a challenge from my congressional district. Crawford County and the City of Van Buren own and maintain a 23 mile-long levee on the Arkansas River.

When the map modernization process began for Crawford County, the County and the City of Van Buren were told by FEMA that one of their options was to work with the Corps of Engineers to have their levee certified. As a result, Crawford County and the City of Van Buren have been proactive in formally enlisting the assistance of the Corps of Engineers. However, challenges and barriers have been encountered that were not anticipated when FEMA advised the County and the City to work with the Corps.

Specifically, as the Corps has looked for legal authorization to perform levee certification work, they have encountered several hurdles that will most likely delay assistance, and probably prevent assistance. For example, in 2000, Congress enacted the Thomas Amendment, which permits the Corps to provide commercially available engineering services only if these are “not reasonable and quickly available through ordinary business channels” and if the Corps is “uniquely equipped to perform such services.”

As a strong proponent of the private sector, I support the Thomas Amendment, but I believe the Corps should take into consideration, in this specific instance, whether the private sector is willing and able to take on the liability that could be involved in levee certification at a cost that levee owners, such as my constituent communities, can afford.

Now, the City of Van Buren and Crawford County are facing an April 2009 FEMA-imposed deadline to complete their levee certification work, or else the citizens and businesses, including the local industrial park, will face mandatory increased flood insurance costs. Even if the Corps can find legal justification to do the certification work, the evaluation would take five to six months. Also, any deficiencies with the levee would have to be addressed before certification. Deficiencies could result in the need to generate significant pay for the levee modification, including engineering, design, and construction costs, which nobody is disputing; that is something that needs to be done.

In short, it is highly unlikely that the April 2009 FEMA deadline will be achievable, despite the best efforts of my communities, who

have been very proactive to try and get ahead of this thing to work with our Federal agencies in a good faith manner. As a result, without a change, much of Van Buren's industrial zone is likely to be reclassified as a high-risk flood zone and the cost of doing business there will be dramatically increased next spring.

In conclusion, as the Ranking Member on the Subcommittee on Water Resources and the Environment, I hope our Subcommittee and this Subcommittee can work together with both the Corps of Engineers and FEMA to produce a solution that will provide reasonable accommodation for levee owners who are making their best effort to get their levees certified as quickly as possible. As an initial step, I would suggest that we engage in dialogue with FEMA to see whether an extension of the deadline for provisionally accredited levees, such as those in Crawford County, would be possible.

Again, you know, I have a situation where I encouraged my city, my county to get ahead of this, to do the right things. They contacted the appropriate agencies, were told to move in a certain direction; now, though, have been given a time line that is unattainable, and it is ironic because much of the delay that is going to be caused in reaching that time line will be from the agencies themselves and their inability to make a decision and move forward. So it is a problem right now. Like I say, most of our communities now are struggling with this, as you hear from the testimony. They need guidance, but we really do need to look at these very unrealistic timetables. Thank you very much.

Ms. NORTON. Thank you, Mr. Boozman.

Mr. Ehlers?

Mr. EHLERS. Thank you, Madam Chair and Mr. Graves. I appreciate the opportunity to testify. As you know, I have spent many, many hours in the seats where you are in now. This is my first time here, and I must assure you the view is quite different from here. You look very imposing at this point.

Thank you for the opportunity to testify before the Subcommittee today. I have been a strong supporter of the Flood Insurance Program ever since it began. I think it is a great idea. But we also have to recognize it has to be properly administered.

My hometown of Grand Rapids, Michigan is facing severe negative economic impacts as a result of FEMA'S floodplain remapping initiative. I appreciate the opportunity to explain this to the Subcommittee precisely what is happening here. I have a longer written statement that I will submit for the record.

Grand Rapids is a city of 200,000 people, settled along the Grand River. It is the second largest city in Michigan and the center of a metropolitan area of over 1 million people.

The current story of flood mapping in Grand Rapids is one of bad timing and bureaucratic closed-mindedness, as well as disagreements between different Federal and State government agencies. The City was first notified about the FEMA Flood Plain Remapping initiative in the fall of 2003. This was right around the same time that the city had just completed a 17-year, \$12.4 million project to improve the flood walls and embankments along the Grand River. In other words, an urban area with not a lot of money took it upon themselves to develop a major flood wall and embankment project.

They raised the flood walls to one foot above the 100-foot elevation, which at that time was deemed by the Corps of Engineers as adequate, cost-effective, and contact-sensitive.

Two years later, after that major project was finished, which really strained the city's resources, in August 2005, FEMA issued a procedural memo which required that levees be constructed to three feet above the 100-year flood elevation in order to be considered during mapping revisions or updates. In other words, the mammoth project the city had done, following guidelines of various government agencies, both State and local, were now two feet below the required level. Apparently, the FEMA design standards were in place since 1986, but it was more of a guideline than an enforced rule, and Grand Rapids City officials were told in July 2006 that their flood walls and embankments were not adequate, would not be considered in FEMA'S remapping.

Once the appeals are resolved and a new map is finalized and published, it will trigger the flood insurance requirements for those properties located in the newly identified floodplain. According to a draft report from the local engineering firm, the new regulations are estimated to impact over 6,000 parcels in the City of Grand Rapids, with a potential for a total annual insurance premium of somewhere between \$6 million and \$22 million. This is particularly unwelcome news to a city and a State facing troubling economic times and high unemployment. Many of the affected properties are in low-and moderate-income neighborhoods.

I strongly encourage this Subcommittee to work with FEMA on a more reasonable approach. FEMA should discard its all-or-nothing policy on levee certification and should take existing flood protection into consideration when revising its maps and calculating flood risk, particularly when a city, a modern city with typical modern city financial problems, has taken it upon itself to really improve the protection within the city. I understand that FEMA has a job to do in warning and ensuring against flood risk.

However, arbitrarily disregarding existing flood protection, ignoring contact-sensitive design, and requiring property owners to insure themselves against imaginary flood risks that will likely never be realized has economic impacts on communities and property owners that are inappropriate and unfair. We have heard rough estimates that the new standards will likely provide protection for a 500-year floodplain, which is certainly longer than the age of the city.

Finally, I encourage the Subcommittee to ensure that FEMA is utilizing the best and most appropriate geologic, hydrologic, and climate data, and the flood modeling available. It is my understanding that there is some question about the accuracy and consistency of the modeling used in mapping Kent County and the City of Grand Rapids. The effective implementation of a reasonable flood insurance program depends on accurate science.

Let me add one quick note, and that is even if we simply raise the current levees by the two feet that are required by FEMA, that would not meet the standards of FEMA because there are a number of river crossings and bridges that would not meet the standard. Reconstructing all the bridges would be a back-breaking monetary task for the City of Grand Rapids. So I am asking that you

help us develop a better plan that can meet the actual needs of the floodplain and not break the bank for the City of Grand Rapids.

I thank you very much for your listening and I hope we can work this out.

Ms. NORTON. Thank you very much, Mr. Ehlers.

I must say I found the testimony of the members very compelling, and you have added to our questions for the next panel. I think I ought to reserve my questions mostly for them, but I do have a few questions to ask you.

I noticed that Mr. Hall, Mr. Boozman, and Mrs. Miller, who spoke about the study, have raised questions that go to the need for more time. I wonder if your communities have asked for extensions and whether those extensions have been granted, if any of you have had that experience.

Mrs. MILLER. None of my communities, that I am aware of, have had any success in getting extensions. The flood maps, as they have come out, have been implemented and the premiums have gone up substantially and the people are paying these premiums; of course, if you have a mortgage. If you don't have a mortgage, you don't have to pay the premiums.

Ms. NORTON. Well, the flood maps are out. The extension would have to do with your response or your differences with the map, and I am trying to get some sense of whether or not there is the kind of communication you might expect between the Federal agency and the community to work out differences between communities and FEMA.

Mr. BOOZMAN. In our case, Ms. Norton, the community is very supportive with going forward with the levee certification project. They don't dispute that it needs to be done; I don't dispute that at all either. I think Katrina, the events of the past have shown us that we need to be doing this work. But the reality is, you know, for the agencies to require an April 2009 deadline, when we all have experiences with these agencies, it is difficult for them to make the decisions to allow the community to go forward with the project, so they are not getting the answers to the question whether or not the Corps can provide this or the 2000 law will preclude them. Those decisions aren't being made. And then if the Corps does get involved, it will take them several months to figure out what is going on, and then the construction. So the deadline is unrealistic by any standard, and we have not had any success in getting the deadline extended.

Now, part of it is that this truly is uncharted water. I mean, people are trying to figure out who can do what, who is responsible for what, and I think that is the biggest. The agencies have been great to work with and stuff, but we haven't had any success in extending the deadline.

Ms. NORTON. That certainly gives us some reasons to question the time frame when we speak to the next panel.

I wondered, Ms. Matsui, what you meant when you said that the new standard was unobtainable.

Ms. MATSUI. Madam Chair, we are on the leading edge of some new standards being imposed upon us, and the Corps has started to implement, apparently, these new standards which were apparently in existence using a new probability theory. So, therefore, for

us, we have always been the good citizen, in essence, and being very proactive. We had been certified for 100-year and we were going for 200-year, and during that process we discovered that we had some under-seepage, so, therefore, we moved forward to address this. In the meantime, with this remapping, we understood now, because of the new Corps standards, that we are now in the floodplain. So we are moving forward with our own assessment to advance-fund this because we need to do this.

But, quite frankly, the question I bring up is that if the Corps goes forward with these new standards that are imposed upon us without regional differences, my concern is when are going to reach the standard we need? Because it seems like they are changing all the time. So we reach 100-year or 200-year, then all of a sudden we are not there yet. So that is my concern here.

Mr. HALL. Madam Chair?

Ms. NORTON. Yes, Mr. Hall.

Mr. HALL. May I respond to your first question, which is, I believe, whether we got a response back from FEMA. In our case, we did request a 180-day extension of the period and were told, in a response letter from David Maurstad, the Assistant Administrator for Mitigation, that FEMA is only allowed by statute to provide a 90-day appeal period. And they told us, in fact, that the length of the appeal period is "regulated by statute and FEMA is unable to extend it."

However, they will not issue a county-wide flood insurance rate map until all communities within the affected area have provided their results and completed their appeal period. So it is sort of a de facto extension, but it is haphazard, and I believe that the Committee might consider making that an option for FEMA to legally extend that to 180 days.

I should add that in my home county of Dutchess, which I didn't mention in my formal statement, we have also had flooding of both the 10-mile river, which the Corps of Engineers is currently engaged in a feasibility study on Wappingers Creek, which has had catastrophic flooding that took out two-plus megawatt—funny that a hydroelectric power plant would be taken out by too much water, but there was so much water coming down the Wappingers that it went over the top of the hydroelectric plant building, and they had to shut down the generators because they were full of water and silt. And then in Orange County we had the Wallkill River, the Minnesink River, and the Delaware River all flooding at the same time, and right now the Corps is looking at studies in that area, both at my request and at Congressman Hinchey's request.

Things are changing very rapidly because not only of increased storm frequency and increased storm strength, which fit the models of climate change, but also because of development, which means more impermeable surfaces like parking lots and roofs and driveways and roads, where there used to be natural plains, wetlands, and forests which could retain water and hold it, instead of releasing it immediately into storm drains and into the storms. And, as a result, what used to be a normal rain event now seems to produce a flood in our area much more quickly.

So I thank you again for the work that you do and I encourage you to, if you can, give FEMA the option of going to a longer appeal

period for communities like those that we all represent who have to deal with varying factors and with the costs that is borne by the property taxpayer and by homeowners. Thank you very much, Madam Chair.

Ms. NORTON. Thank you, Mr. Hall. The Subcommittee will look at this 90-day period. It is a pre-Katrina, obviously, statutory mandate. There are new areas in the floodplain and lots of complaints, so we certainly will take a look at that.

I want to quickly move along, but I do want to ask Mrs. Miller, who has raised a very interesting notion of self-insurance. Do you believe that would be less expensive if Michigan or your county did that?

Mrs. MILLER. Yes, I absolutely do believe it. I have had some preliminary discussions. In fact, I have told our State insurance commissioner, I said, you know, if you had AAA or any of these regular private insurance companies doing this kind of thing, reaping all of this additional money based on the claim rate, you would be up in arms. And this is what is happening to us as a State, and we can demonstrate it over and over and over in so many of these various counties, as I have said and others have said. We have literally thousands and thousands of property owners that have never had to pay flood insurance. All of a sudden, with the new maps, they are now in the floodplain and they are paying these very high premiums.

And this is where I say, as a Nation, a compassionate Nation, which I believe we are, when we see what happened with Hurricane Katrina or Rita, or the various hurricanes that happened in Florida, or we see what happens in Mr. Graves' State, we see what happens along the Mississippi, as a Nation, we are never going to say we are not going to help our fellow Americans. And that is why I say I think we should have a national catastrophic fund or something so we are able to move very quickly, rather than what we feel we are literally funding other States.

Ms. NORTON. Well, then somebody would have to fund the national catastrophic fund, and your taxpayers and mine would end up putting money in that too.

Mrs. MILLER. At least it would be spread out evenly, rather than States like Michigan, who are paying very high premiums and not getting the claims back.

Ms. NORTON. Well, I am not sure it would be spread out evenly.

Mrs. MILLER. But, yes, I do intend to pursue this with an idea towards self-insuring.

Ms. NORTON. Well, I think FEMA has to take that into account, that people may be driven to other forms—of course, there are penalties for that, because one qualifies for disaster assistance, there is a lot of quid pro quo in here. But we do need to look at the basis here. This is an insurance program, people. Insurance programs usually mean that some people put in—everybody puts in, some get out most. That is the whole nature of insurance, whether it is health insurance or flood insurance. Whether or not that fits this post-Katrina period is very much worthy of real examination. I promise you, Mrs. Miller, we will look at it, because if a lot of communities decided to self-insure, then where would—

Mrs. MILLER. Where would it go, that is exactly right. And it does sound like a rather Draconian idea, I understand that, which I think speaks to how frustrated we all are with looking at the numbers on this type of thing.

Ms. NORTON. I very much appreciate all of this testimony, and I assure you we will take every bit of it into account not only in our questions to the next panel, but in statutory changes and other changes we may request. Thank you very much for coming, especially for coming early.

Could I ask the next panel to come? Steven Stockton, Deputy Director of Civil Works, United States Army Corps of Engineers; David Maurstad, Assistant Administrator, Mitigation Directorate, FEMA. Could I ask you to stand and be sworn?

Raise your right hand. Do you swear that the testimony you will give will be the whole truth and nothing but the truth, so help you, God?

[Witnesses answer in the affirmative.]

Ms. NORTON. We are going to proceed rapidly. I think we should begin with FEMA. So I will ask Mr. Maurstad to start, followed by Mr. Stockton.

TESTIMONY OF DAVID MAURSTAD, ASSISTANT ADMINISTRATOR, MITIGATION DIRECTORATE, FEDERAL EMERGENCY MANAGEMENT AGENCY; AND STEVEN STOCKTON, DEPUTY DIRECTOR OF CIVIL WORKS, UNITED STATES ARMY CORPS OF ENGINEERS;

Mr. MAURSTAD. Good morning, Chairwoman Norton, Ranking Member Graves, and Members of the Subcommittee. I am David Maurstad, Assistant Administrator for Mitigation and Federal Insurance Administrator for FEMA. Thank you for allowing me to update you on three items: FEMA'S progress in meeting Congressional intent that the Nation's flood map inventory be updated and modernized; the importance of accurately depicting levees on community flood maps; and to discuss the status of flood maps right here in our Nation's capital.

A collaborative effort among FEMA and its partners, the Flood Map Modernization Initiative uses state of the art technology to replace paper FIRM panels with modern digital maps. For the majority of flooding sources, the floodplain boundary lines are updated and in some areas the flood elevations are revised. Recognize, though, that the flood maps only depict the one percent annual chance flood, a flood with a 1 in 100 chance of occurring in any given years. It is a widely accepted, though minimum, standard.

For FEMA, the modernized maps allow us to establish and maintain a fair and accurate insurance rating mechanism for the National Flood Insurance Program. For the over 20,000 communities participating in the NFIP, they are much more. The digital data and maps serve as a vital foundation for local flood hazard awareness, land-use planning, floodplain management, evacuation planning, and reducing vulnerability from future flood events. FIRMs are used more than 30 million times a year by builders, lenders, realtors, insurance agents, community planners, local government officials, homeowners, and others.

Map Mod's objective—to map 65 percent of the Nation's land area, where 92 percent of the population lives—is within reach. FEMA has over 1400 county-wide mapping projects underway currently in every region of the Nation. In fact, at the close of fiscal year 2007, we had produced modernized maps for over 60 percent of the Nation's population.

Accurately depicting flood hazards near levees is critical. FEMA is encountering levees which communities know do not provide the flood protection once thought, like here in Washington, D.C. In other areas, we are finding that the level of protection provided has not been established or is not known. In cases where we know a levee does not provide protection against the one percent annual chance flood, we are compelled to ensure that the public is aware of the threat and arm them with the facts that will allow them to reduce their risk. And even in cases where levees meet FEMA'S standard, we must let them know that a chance exists that a greater flood could still overtop the levee, which is why we show areas protected by levees on our maps.

While flood insurance is not required for these areas, FEMA recommends that property owners consider insurance at a reduced rate. As we know, we can't be too careful when it comes to ensuring people are aware and take steps to reduce their risks. In the last two weeks, in Missouri and Arkansas, levees have been breached, flooding hundreds of homes and businesses.

Let me conclude by providing a brief update on the status of the Washington, D.C. Flood Insurance Rate Map. In March of 2007, due to new information provided by the U.S. Army Corps of Engineers that outlined significant levee deficiencies in the D.C.-Potomac Park system, FEMA notified the District of Columbia by letter that it issued revised preliminary flood maps depicting the levee system as not providing adequate flood protection.

On March 25 of this year, FEMA articulated its continued commitment to inform citizens, businesses, and institutions about the flood hazard, while expressing FEMA'S optimism in working together with the District in outlining a collaborative solution for this unique situation. At this point, there is agreement that the D.C.-Potomac Park levee does not meet current NFIP levee requirements. Nonetheless, we have agreed to meet with city officials over the next 30 days to discuss how identified deficiencies might be remedied.

FEMA will continue working with the Corps and our other Federal, State, and local government partners to communicate the true and current flood hazard for Americans in their homes and their places of education, work, worship, and gathering. We have both a legal and moral responsibility to depict the risk accurately, and we are committed to upholding our responsibilities. We understand that our work is not always popular, but if we choose to look the other way when it comes to flood hazards, the tools that people need to make informed decisions will not be available, putting many families and businesses at risk. FEMA is taking a monumental first step in reducing the Nation's flood risk. We are providing the data needed to make sound decisions, but data isn't enough. As a Nation, we also need a collective will to ensure the right decisions are made.

Madam Chair, on a side note, I want to observe that the Pre-Disaster Mitigation Grant Program is up for reauthorization this year, and I look forward to working with the Subcommittee to reauthorize this very valuable mitigation program.

Thank you, and I look forward to responding to any questions or comments.

Ms. NORTON. Thank you very much, Mr. Maurstad.

Mr. Stockton of the Corps of Engineers.

Mr. STOCKTON. Thank you, Chairwoman Norton and Ranking Member Graves and distinguished Members of the Subcommittee. I am Steve Stockton, Deputy Director of Civil Works of the U.S. Army Corps of Engineers. With your permission, I would like to make a short statement and submit a complete written statement for the record.

The Corps of Engineers has served our Nation since its birth. We have partnered with local and State governments since 1917 on public safety projects to reduce the damaging and sometimes catastrophic effects of flooding. These projects, primarily designed and built by the Federal Government, are then transferred to the non-Federal sponsor for ongoing maintenance and operation. The Corps of Engineers shares with the Federal Emergency Management Agency the expertise and mandate to address the Nation's vulnerabilities to flooding. However, responsibility for managing the Nation's flood risks is also shared among Federal, State, and local governments, private citizens, and enterprises such as banks, insurance companies, and developers.

The Corps and FEMA have programs to assist States and communities to promote sound flood risk management. However, a critical element of successful flood risk management is land use. Authority to determine how land is used within floodplains and to enforce flood-wise requirements is the responsibility primarily of State and local government.

FEMA has embarked on a Map Modernization Program to update and improve the Nation's flood insurance rate maps. In some instances, the Corps is being asked to conduct or support levee certifications for these maps. Certification is a technical finding for the National Flood Insurance Program that there is reasonable certainty that a levee will contain a flood within a one percent annual chance of occurring. This finding is only for flood insurance purposes and should not be interpreted that the public living behind the levee is safe from all flooding.

While the Corps does not have authority that specifically addresses levee certification for National Flood Insurance Program purposes, it has authorities to perform certifications, when requested, on levees that the Corps operates and maintains; levees that are part of an ongoing project or study; levees designed and built by the Corps but operated by a local, non-Federal sponsor; levees in the Corps Rehabilitation and Inspection Program; and levees constructed by other Federal agencies. Except for levees owned and operated by the Corps, funding is the responsibility of the entity desiring certification.

Finally, the Corps is pursuing effective combinations of tools to ensure a safe and informed public. Our intent is to educate citizens

about their risks so that they can become responsible for their safety by knowing what actions to take to lower those risks.

Madam Chairwoman, thank you for the opportunity to testify today on the Corps roles and responsibilities in FEMA'S remapping program and our broader mission of assisting in the reduction of flood risk for the Nation. I will be pleased to answer any questions you may have.

Ms. NORTON. Thank you both for that testimony. Could I ask how we got to the one percent risk, the 100-year threshold? Was that the threshold before in prior mapping?

Mr. MAURSTAD. Yes, Madam Chair. Actually, the one percent standard, I believe, has been in place since the early 1970s, very near to the inception of the program that started in 1968, and it was at that time and has since been reviewed and discussed at quite some length as to what the minimum Federal standard ought to be. So it goes back literally to the start of the program, has been looked at at Congress's request a couple of different times. Most recently, the Association of Floodplain Managers Foundation held a symposium on whether or not the one percent annual chance was still relevant and received comments from experts in the field across all disciplines. That was accomplished about two years ago. They produced a lengthy document summarizing their findings, and you have a panelist in your next panel from ASFPM that can better articulate this. I believe the finding of that summary was that it was still the most appropriate standard, although it may be time to look at it again.

Ms. NORTON. Do you think that there should be a universal standard, that you should have the same standard throughout the Nation, the same one percent standard throughout the Nation? You heard Members perhaps speak about communities that have never seen a flood. You heard testimony about how—perhaps because of climate change, who knows—there has been some lowering of the water level. And, yet, throughout the Country you have the same standard. How do you justify that?

Mr. MAURSTAD. I do believe there does need to be a standard, and it needs to be uniform across the Country because the standard is that in a particular area of the Country there is a one percent chance every year that a flood could happen there. There certainly are going to be areas in the short period, just the 40 years—

Ms. NORTON. Yes, a flood, but a flood of the kind that requires the kinds of changes that communities are now being required to make? Sure, there will be a flood.

Mr. MAURSTAD. Ma'am, I do believe that there does need to be a minimum Federal standard, and I think that is part of the difficulty as we communicate with communities and the public, to get them to understand that the Federal standard is a minimum standard. We have events every year that are less than our minimum standard that cause significant damage. It is not a either-or circumstance. People that are right outside the special flood hazard area, the highest risk area of our Country, have one-third of the losses in the national flood program every year. So you can see that the minimum standard is just that.

We have a program in the National Flood Insurance Program, the Community Rating System, where we encourage communities to take actions beyond the minimum Federal standards. As of May 1st, there will be 1089 communities that choose voluntarily to do so. They receive discounts on their flood insurance premium for accepting that additional responsibility, which affects about two-thirds of our policyholders. So I think we get people to understand that this is a minimum standard, there are going to be events every year that exceed this minimum standard, and we need to prepare for those also.

Ms. NORTON. There have been complaints, for example, that communities make changes. There were complaints about a \$17 million change invested in levees; now they don't meet the standards, they can't be grandfathered in any way. How would you deal with a community that just finished work of that kind?

Mr. MAURSTAD. The National Flood Insurance Program is a program that depends upon its partnerships. The over 20,000 communities that participate in the program do so voluntarily because of the benefits that they believe they receive from joining the Program: the floodplain management requirements that they adopt at the local level in their ordinances, the availability of insurance, making their communities stronger and safer. It is those partnerships that really make the Program successful. Whenever we are doing a remapping, as we have been doing very vigorously as a result of the Map Mod initiative that was started in 2004, we reach out through our regional offices with the communities and work with them as we go through the mapping process.

Ms. NORTON. I am asking a very specific question. I have given you a hypothetical. I would like an answer to my hypothetical.

Mr. MAURSTAD. Okay.

Ms. NORTON. Somebody just finishes putting in \$17 million worth of work.

Mr. MAURSTAD. The regulation——

Ms. NORTON. Can that be taken into consideration or not?

Mr. MAURSTAD. Very specific answer to your question. The regulation since 1986 has required three foot of freeboard for levees. Since 1986, not one foot, three foot.

Ms. NORTON. Part of what you are meeting when people complain to you are statutory requirements. Why haven't you asked for more flexibility if more flexibility is needed? Is 90 days sufficient? Do you need changes in the statute? Are there other kinds of flexibility that Congress could give you so that you could work in better partnership with local communities?

Mr. MAURSTAD. We are always willing to work with the Subcommittee on looking at potential——

Ms. NORTON. Well, I am asking you specifically. You have heard the time frame discussion.

Mr. MAURSTAD. We have got over 1400, as the map over here depicts, 1400 ongoing flood studies. In most cases, the current statutory requirements and the process that we use go along without a hitch. We certainly have circumstances where there are unique situations with communities, and we do our best in working with the communities to work with them——

Ms. NORTON. If somebody needs more than 90 days, what would you do?

Mr. MAURSTAD. We can always revise the maps, first of all. The 90 days starts the statutorily required comment period. At the end of that, there is another six-month appeal and adoption process at the community level. And once the community adopts the final maps, the maps can always be revised through a Letter of Map Condition or a Letter of Map Revision. So the maps can be revised when new and better data is available or, in the case of levees, where projects start and are completed.

Ms. NORTON. So you don't believe you need any more flexibility. You think you have all the flexibility and you do not see the time frames, for example, as a particular problem? I just need these answers. Because if you need changes, then I don't know why you wouldn't ask for them so that you would have a better relationship—otherwise, we are going to have people coming to the appropriators, we are going to have people coming to Congress saying my community just can't do this within that time frame or they want this or that ad-hoc change included for them.

We are trying to avoid that, and if we can do so, then we will do so. We just went through a period when we had a post-Katrina, where we gave FEMA more flexibility than it had under the statute. I am simply trying to find, as part of our oversight, whether or not the statute is 100 percent exactly as you would have it with respect to your ability to communicate in time, get feedback, get the additional time that communities need. You think it is okay?

Mr. MAURSTAD. I believe it is.

Ms. NORTON. Okay. You heard one Member, Representative Miller, testify about the unfairness she perceives to property owners, so much so she said they never get a flood, or so seldom, that she is going to recommend, if she is not able to do something about it, self-insurance. What is your answer to that?

Mr. MAURSTAD. A couple of points I would make, and I think that you, quite frankly, hit the nail on the head in that we are talking—we can't predict when an event is going to happen to us. The maps attempt to provide information within a realm of probability. Quite frankly, I think that the communities in any State already can self-insure; they can already opt out.

Ms. NORTON. Of course they can.

Mr. MAURSTAD. Sure.

Ms. NORTON. What is the effect of self-insuring, one, on the program and, two, on the eligibility for disaster assistance, et cetera?

Mr. MAURSTAD. Well, exactly, they would not be eligible for disaster assistance and the citizens in those communities would not be eligible for flood insurance through the program. There are consequences, of course.

Ms. NORTON. And you regard the program as quite adequately funded now through this insurance mechanism, I take it?

Mr. MAURSTAD. Well, the program is adequately funded, as all Federal Government programs are adequately funded.

Ms. NORTON. Is that the only way in which it is adequately—you have never had problems?

Mr. MAURSTAD. The program is currently \$17.3 billion in debt. We had, through Hurricanes Katrina, Rita, and Wilma, paid out

more in claims in those three events than the program had paid out in the first 38 years of its existence. So a catastrophic——

Ms. NORTON. So it is because of Katrina that you are in debt, or was it——

Mr. MAURSTAD. Yes.

Ms. NORTON. It is Katrina that did it?

Mr. MAURSTAD. From 1986 until 2004, the program was self-sufficient from the policyholder premiums, while providing \$1.3 billion of benefit in avoided losses every year.

Ms. NORTON. Has there been any increase in premiums or the like?

Mr. MAURSTAD. Not specifically because of Katrina. We have been increasing the premiums to the program because 75 percent of the policies are risk-based, actuarially-based premiums. Twenty-five percent of the policies are discounted for those people that had properties that were mapped into the special flood hazard area, so Congress said provide them discounts. So we have had—and because of the fiscal financial need to make sure that we have funds for catastrophic years, we have been increasing the premiums over the course of the last five years.

Ms. NORTON. Thank you very much. I am going to go to the Ranking Member at this point.

Mr. GRAVES. Is there any help for small communities—and I am particularly thinking about the unincorporated communities—for certification? Is there any Federal assistance for those communities?

Mr. MAURSTAD. There is not from FEMA.

Mr. STOCKTON. Nor from the Corps, sir.

Mr. GRAVES. What are those small communities—some of those communities, I imagine, it is going to be pretty tough, or it is pretty tough. And I am thinking about those ones that—and my district is full of them in floodplains.

Mr. MAURSTAD. Well, that is part of the reason why we issued the procedure memo that allowed for those communities where the chief executive officer will sign that they believe that the levee continues to provide the one percent annual chance protection, that we provide them two years to provide us with the necessary information to be able to accredit that levee on their maps, one of the reasons why. So at least they had some period of time, as the owners of the levees and those that benefit from the levees, to be able to put together the resources to provide that necessary documentation.

Ms. NORTON. Mr. Arcuri.

Mr. ARCURI. Thank you, Madam Chair.

Gentlemen, thank you very much for being here. I have two questions, one very specific to the counties in my congressional district and one more general with respect to the State of New York. FEMA has informed the New York State Department of Environmental Conservation that fiscal year 2008 flood map modernization funds will be used for Chemung, Schenectady, Oneida, and Oswego Counties, although they have also informed the DEC that no fiscal year 2008 dollars will be used to update detailed map studies only to overlay the old detail studies on new topographical layer. Updated maps are critically important to ensuring that the develop-

ment can be placed appropriately, as well to ensuring that people who live in the real flood-prone areas have adequate insurance.

Isn't this contrary to the mission stated in the map modernization mid-course adjustment, of producing new updated maps for communities with greater population, greater flood risk, and greater potential flood growth development? Why would you merely do an overlay for counties like Oneida and Schenectady that have those characteristics which you say warrant updated mapping?

Mr. MAURSTAD. If you would excuse me to provide a general answer to you, and then I will provide a more specific answer for the record.

Mr. ARCURI. That would be great, yes.

Mr. MAURSTAD. I believe we are being consistent with the mid-course adjustment, but it still boils down to what resources that we have available and working through the regions and the States, where they identify the highest risk areas are, and that is, as funds are available, where new engineering studies are done. Now, we, through the President's 2009 budget, are requesting an additional \$248 million for ongoing mapping activities with an emphasis on new engineering studies in high risk areas, so we are hopeful to be able to get to more of those areas that you mentioned.

Mr. ARCURI. Well, I can understand that, but, as I understand it, for instance, sections of the Adirondack Mountains in New York State, where population density is very low, have obviously been left out of that, and that is understandable; the population is low. But in the two counties that I referred to, there is flooding and the population density is high. Shouldn't they be given a higher priority?

Mr. MAURSTAD. Again, without knowing the specifics, I would say yes. But I would also say that these decisions have been made with the State involved in where the dollars that can be allocated for that area need to be spent. So I would have to go back, get the specifics, see what the recommendations were from the State and how that fit in to our national effort.

[Information follows:]

FEMA's Flood Map Modernization Program (Map Mod) Strategy at a National Level

Because of the aggressive goals of Map Mod – providing new digital maps covering 92 percent of the population and 65 percent of the nation's land mass -- a national strategy and plan was developed. This plan, called the Multi-Year Flood Hazard Identification Plan (MHIP), which is publicly available at: http://www.fema.gov/plan/prevent/fhm/dl_mhip.shtm, details FEMA's strategy for providing flood hazard data and maps for areas with the greatest flood risk (production sequencing and projected funding allocations). As initially envisioned in 2003, Map Mod was focused on creating a digital flood layer for all communities at risk of flooding. However, as the Map Mod initiative reached the halfway point, FEMA performed a review that considered input from Congress, the U.S. Government Accountability Office (GAO), DHS's Inspector General, and other stakeholders. Stakeholder recommendations indicated a preference for FEMA to focus on developing flood maps that meet new, higher standards for mapping and for allocating a greater percentage of resources to those communities at greatest flood risk. States and professional organizations have continued to express this preference, realizing that it would delay development of new maps for communities facing less flood risk.

As a result of Congressional direction and stakeholder input, FEMA implemented a Mid-Course Adjustment that placed increased focus on the communities at greatest flood risk. These changes respond to the input that the quality of maps not be sacrificed in order to produce a larger number of maps. Currently, FEMA is on track to complete the Map Mod goals on time and within budget, meeting the quantity and quality standards at a national level, as outlined in the Mid-Course Adjustment.

During Map Mod, FEMA has allocated anticipated funds to each of its Regional Offices based primarily on flood risk, using factors identified with stakeholder input through local, state, and regional collaboration. In collaboration with our stakeholders and partners—particularly the States—FEMA's Regional Offices use the business planning process to determine the sequencing and planned funding levels for counties within their Regions. However, the MHIP and overall nationwide plan balance national risk management requirements with local community needs.

FEMA Region 2 Map Schedule Approach

Based on Map Mod funding and resource limitations, communities and high-risk flood areas in the highest risk decile were given priority within the original mapping sequence. It is important to note that in addition to funding mapping activities in the State of New York, FEMA Region 2 also had to consider funding for the State of New Jersey, Puerto Rico, and the Virgin Islands, all of which have high-risk flood areas in the highest risk decile. Therefore, it was determined that a limited amount of funding could be used for mapping projects in the State of New York during Map Mod.

Background on New York

Since the initiation of Map Mod in 2003, FEMA Region 2 has worked closely with its primary Cooperating Technical Partner (CTP), the New York State Department of Environmental Conservation (NYSDEC), in prioritizing and funding counties in the State of New York. The original New York State Business Plan, developed by NYSDEC and reviewed by FEMA, used

two primary sets of information to prioritize communities for restudy/remapping. First, using data collected by FEMA, a needs assessment was developed using:

- Age of existing maps;
- Population density;
- Known mapping needs as recorded in FEMA and NYSDEC mapping needs databases;
- Number of flood insurance policies within communities; and
- Ongoing map updates being undertaken by FEMA's partners at the state or local level.

In preparing its business plan, NYSDEC combined the above information with other factors to develop a sequencing algorithm. These additional factors included:

- Existing or potential local mapping partners;
- Availability of existing base map, topographic, and/or flood hazard data;
- Repetitive Loss Claims;
- Number of Letters of Map Change;
- Population growth; and
- Presence of Federal flood control projects.

These factors were used to create an initial mapping sequence and prioritization for the state of New York. Based on the funding, the state business plan, and risk decile ranking, it was determined that Chemung, Oneida, Oswego, and Schenectady Counties were not in the highest risk, and therefore first priority decile. Specifically, Oneida County was determined to be in the second risk decile, and Chemung, Oswego, and Schenectady Counties were determined to be in the third risk decile.

Changes to the NY Sequence

In June 2006, a major disaster (DR-1650-NY) struck New York State, leading to a Presidential disaster declaration in 12 counties. As a result, Region 2 was able to secure funding from outside the Map Modernization funding stream, via the Hazard Mitigation Technical Assistance Program (HMTAP) mechanism, to undertake a large data acquisition project and detailed flood hazard analyses in many of these counties. These included Broome, Chenango, Otsego, Herkimer, and Tioga Counties. Because some areas experienced flooding greater than the 500-year flood event during the disaster and the urgency of providing updated information to guide these communities' extensive rebuilding needs, reprioritization of the original Map Mod sequencing for New York occurred. During that reprioritization, several mapping projects including those for Chemung, Oneida, Oswego, and Schenectady Counties were delayed.

Path Forward for Chemung, Oneida, Oswego, and Schenectady Counties

Mapping for these four counties will all be initiated this fiscal year (FY08). The additional time has allowed for identification of supplemental partners at the state and local level who are contributing to the acquisition of high-quality elevation data in Oswego and Schenectady Counties and a large portion of Oswego County. Digital elevation data is now available for Chemung County to leverage the Federal investment in a new Digital Flood Insurance Rate Map (DFIRM). These projects will yield new DFIRMs for all four counties within the next several years.

Not mapping adjacent counties

As stated above, FEMA prioritizes map project schedules nationwide based on areas with the greatest flood risk. Because of that approach, counties that have common political borders (in the same state or not) may have different map schedule dates, or in some instances, will not be mapped at all during Map Mod. Specifically, counties that share political boundaries may not necessarily share the same flood risk.

Beyond Map Mod

The digital technologies advanced through Map Mod have opened doors that allow more informed, sophisticated, and effective ways for local and state governments to assess, communicate, and reduce flood risk. However, mapping needs continue beyond 2008. Map Mod brought the flood map inventory of the NFIP into the digital world. FEMA can now more fully assess its flood hazard data and maps and identify aspects of the data requiring updates to credibly identify the Nation's flood risk.

With the strong foundation of Map Mod in place, FEMA will focus on filling flood hazard data needs and expanding and improving utility and accessibility of the flood hazard and risk data. FEMA will build on the benefits of digital flood hazard data, allowing easy access through our web-based portal and enabling powerful data analysis that quantifies flood risk in ways that facilitate improved mitigation planning and measures flood risk reduction.

Mr. ARCURI. I would appreciate that. One more question. Prior to Hurricane Katrina, New York State had the second highest flood losses in the Nation under the National Flood Insurance Program. This was not because New York experienced floods of overwhelming magnitude but, rather, the sheer frequency with which it suffered from declared disasters. I look at the map that I have here, the progress of mapping activities, and New York has, it seems, a significant number of counties which are not funded.

And especially when you look in the southern part of New York State that neighbors Pennsylvania, where all of the counties seem to be funded, and yet the neighboring counties right across the border are not funded; and that seems to be more the rule than the exception in New York. What is it that goes into the evaluation in terms of different—I see the same thing happens with respect to Northwestern Ohio and Southern Michigan and South Carolina and Georgia.

Mr. MAURSTAD. Well, as I indicated, we have put forward from the beginning of the map modernization the multi-year flood hazard identification plan. It has been out, transparent, visible; everybody has had it. But in the development of that, we used risk, we used stakeholder input from the local and the State level, we looked at, in some cases, communities that had data to contribute to the process. So we have developed a specific sequencing and funding process through the five years of map modernization.

So the risk, of course, is based on flood claims by district, which may be different than the losses that you are talking about if a lot of the events that you had were not insured, because the focus and the direction from Congress has been to look at the impacts to the National Flood Insurance Fund and the National Flood Insurance Program, which may be slightly different from the criteria that you mentioned. But it is still risk-based with local and State stakeholder input.

Mr. ARCURI. So do I have to tell my local communities that they need to get engaged, to be more proactive in terms of getting the message out of what their needs are?

Mr. MAURSTAD. I think that is always good advice. But I also think that, as I go around the Country and look at disasters, one of the things that always strikes me is the number of folks that have been damaged by a flood event that did not have flood insurance. Clearly, people that have flood insurance after events, whether they are presidentially declared disasters or whether they are after a lot of the flooding events that never rise to that level, the people that have a flood insurance policy are those that recover faster and get back on their feet better. So I continue to try to encourage people, if they are in the high-risk area, if they are in the low-to moderate-risk area, to have a flood insurance policy.

Mr. ARCURI. Forgive me, this is my last question. I don't mean to be argumentative, but it just seems odd to me. I don't understand the fact that New York has so little of its counties that are funded and yet it has such a high incidence of flooding.

Mr. MAURSTAD. Again, without knowing the specifics, one aspect that could allude to that is the areas that were funded under the program were more expensive to do, so there were fewer studies that could be done, so the geographic area that could not be

reached. So it could depend upon the types of studies that were done in those areas that were funded in New York, and I would have to get the specifics on that.

Mr. ARCURI. If you could furnish me with that, I would appreciate that very much.

Mr. MAURSTAD. Yes, sir.

Mr. ARCURI. Thank you.

No more questions, Madam Chair.

Ms. NORTON. Thank you, Mr. Arcuri.

Mr. Dent?

Mr. DENT. Thank you, Madam Chair.

Thank you for being here today. Just a quick question about this map that has been presented and the legend at the bottom right. I live in Eastern Pennsylvania, Lehigh Valley, Allentown, Bethlehem, Easton area. We are the green area affected county. What is the difference between the green and I guess that reddish and the funded county areas? What does that mean? Affected would be affected county versus the preliminary county versus funded county, I guess is really the question.

Mr. MAURSTAD. Right. The affected county means that those counties have final maps adopted and in place from the map modernization initiative.

Mr. DENT. But they are not funded.

Mr. MAURSTAD. No, they are funded. They are completed.

Mr. DENT. Okay. Okay, that is what that means, is completed.

Mr. MAURSTAD. Yes.

Mr. DENT. All right, I just wanted to be clear about that point. And then preliminary county means what?

Mr. MAURSTAD. Preliminary counties mean that we have gone through the probably year to year and a half scoping process, development of the new maps, and have provided those maps to the local communities in preliminary form that starts the 90-day process, starts the appeal and adoption process.

Mr. DENT. Okay. And then funded county means?

Mr. MAURSTAD. Funded county means that those counties have received funds to start that we have allocated—

Mr. DENT. To begin the process.

Mr. MAURSTAD. To ultimately have a final effective map.

Mr. DENT. Okay. All right. Now, I want to get to the issue of my area of Eastern Pennsylvania. As you know, Pennsylvania is a very flood-prone State. We probably have more miles of running water than any of the lower 48 States. So we have enormous flood issues.

In my region, we have had three major events in the last three and a half, four years; Hurricane Ivan and two other major events. We, in my region, have put together a regional comprehensive flood mitigation program which has been very helpful. In fact, this year, in the omnibus appropriations bill, we did get some earmark funding, actually, to deal with some of our highest flooding areas, and we are basically working through FEMA to fund what we consider to be six of our high priorities.

Are you at FEMA giving greater consideration to communities like mine in the Lehigh Valley of Pennsylvania that do have regional flood mitigation plans, that they have a lot of projects that area ready to go, have been comprehensively done by planning

commissions, we are well ahead of the game? Do you give priority consideration for funding for those types of applications or proposals versus some other communities that may not be as well advanced in terms of their planning?

Mr. MAURSTAD. Well, the Disaster Mitigation Act of 2000 required all local communities to have local mitigation plans, so four years ago we—

Mr. DENT. Ours aren't just local, they are regional; they are multi-jurisdictional.

Mr. MAURSTAD. I understand. Many communities do it on a multi-jurisdictional basis to meet that requirement. We have over 16,000 communities that now have in place the required mitigation plans. The Predisaster Mitigation Grant Program is a competitive program; it is based on technical engineering and feasibility of the projects, very strict grants management competitive requirements. Having a plan in place, that gets you into the game but doesn't necessarily provide you with additional points, so to speak, in the competition. And, of course, in the Hazard Mitigation Grant Program there aren't requirements other than to have the local plan in place to be eligible for Hazard Mitigation Grant Programs.

Mr. DENT. So based on this legend, then, you really want to be a green area, essentially; you want to be affected county, right, in terms of your process?

Mr. MAURSTAD. Well, this is indicating those counties that have effective maps, which is different from having local mitigation plans. So this really doesn't depict what you are talking about.

Mr. DENT. Okay. All right, that is why I was a little confused with that point. Okay, thank you.

The other issue I have, too, being, again, from Eastern Pennsylvania, we are a partner in the Delaware River Basin Commission. That is a multi-State entity: Delaware, Pennsylvania, New Jersey, and New York. And one issue that I continue to hear—and perhaps this is more a question for FEMA; it would be a better question, I guess, to the DRBC, who is not here, but the question I hear most regularly is this: my residents will tell me that floods are occurring in part in Eastern Pennsylvania because of the reservoirs up in New York being at too high capacity, and that those reservoirs need to be managed differently; that is, not be at 100 percent or over 100 percent capacity, but some other number less than 100 percent; I don't know if it is 80 or 90 percent, but some other number.

The feeling is that when those fill up that contributes to flooding downstream and it is a source. I realize there are lot of experts and hydrologists and others who have to examine this issue and have some very different opinions, that we must deal with this issue from a science-based criteria or perspective.

So I would just be curious to hear your thoughts, particularly FEMA'S thoughts—or even the Corps, it doesn't matter—how you feel we should be talking to our constituents about that very sensitive issue? Because they are convinced the issue is the reservoirs are at too high capacity and that is what is driving flooding on the Delaware.

Mr. MAURSTAD. Well, from FEMA'S National Flood Insurance Perspective, that is a jurisdictional issue. What we are talking

about today is mapping the risk. The risk is there, and what we have been charged to do is go out and determine what that risk is and then communicate it to local governments and to the public so they can take necessary actions as a result of that. So what you are talking about really falls outside the scope of my area of responsibilities.

Mr. DENT. Corps?

Mr. STOCKTON. As this Nation developed, a lot of projects were built, dams and reservoirs, some Federal, non-Federal, authorized for specific purposes, and we do have authorities to go in and re-evaluate basins or systems to adjust them to more contemporary needs. So the authorities exist. It would take funding to do one of these studies to help re-evaluate exactly how the system might be operated for more optimal contemporary purposes.

Mr. DENT. One other thing, too. In my community, too, we are looking at developing some interesting flood warning systems and actually trying to get some of these funded. I know if you have any types of perspectives on these types of programs, but it has gotten to that point, where I live, particularly along the Delaware, that, with the number of events we have been having in recent years—we didn't have any major events since 1955, and then over the past three, four years we have had three major events. So now there is very serious talk of flood warning systems, of course, other alternative plans to help elevate houses or remove people from areas of high risk. So I would just be curious to hear your comments and perspective on these flood warning systems at FEMA.

Mr. MAURSTAD. Well, I think they have proved to be very valuable and they are, I think, in many areas of the Country very necessary preparedness activity that needs to be looked at so that communities can be prepared for and know how they are going to respond when an event is at their doorstep.

Mr. DENT. Okay, that is my final question. I guess my only comment would be I just encourage FEMA to stay engaged with the Delaware River Basin Commission as we talk about flood mitigation and help them, because obviously anything we can do to prevent these floods or mitigate these flood events is important to you because you are the ones who are asked to respond after the fact.

So to the extent that you can help shed some light on the issue of where these reservoirs should be in terms of capacity might be very helpful. And there are a lot of competing interests, I understand, on the Delaware. New York State is interested in water for the city, we are trying to manage both drought and flood at the same time, and I do understand the complexities of these types of issues, but FEMA'S input with the Delaware River Basin Commission I think would be very valuable to helping us better address this difficult situation. So thank you and I yield back.

Ms. NORTON. Thank you, Mr. Dent.

Mrs. Capito.

Mrs. CAPITO. Thank you, Madam Chair.

I want to thank the gentlemen. I represent the State of West Virginia. We have, as well, a lot of flooding, but it is more of a flash flood type situation into the hollows because of our geography. On the map I am curious to know—and maybe you covered this in your opening statement, and I apologize if I didn't hear it—when

a county begins to map in conjunction with FEMA, is there a process by which the county can contest some of the results? Because this actually happened in one or my counties. What is the process for that?

Mr. MAURSTAD. I appreciate the question. The answer is yes, and I go back to one of the comments that I made. I am not sure if you were present at that time where I said that really the success of the program depends on its partnerships. So once we start this process with our partners, those that participate in the National Flood Insurance Program, we sit down and we have what is initially called a scoping meeting that starts the whole process and kind of lays out how things are going to unfold along the way. While the engineering work is done, if communities have information to provide, we accept that, we use that; if they have topographic information, for example. Along the way we continue to let them know what and where we are at during the mapping process.

Of course, when you get closer to the more formal processes, when we provide the preliminary maps, there is that 90-day comment period where communities can provide scientific or technical disagreements, we will call them, with the maps that have been provided to them. Then there is even, during the six month appeal, an adoption process that they go through. Certainly, disagreements can happen during that.

But then back again in response to the Chairwoman's question, at any time that there is better information that communities can share with FEMA, we want that information, then we can have a process for updating and improving those maps. We want the best maps possible for communities.

Mrs. CAPITO. Right. And I appreciate the good hard work that you do. And I know you are not in the emergency response area, but FEMA has done a great job, historically, in our State, coming in and setting up very quickly in very difficult situations, and I appreciate that.

Let me ask you another topic that we discussed a lot. It was called, at one point, "three strikes and you're out," you know, if you filed your flood insurance and collected three times. What is the status of that and do you have anything to say about that?

Mr. MAURSTAD. Well, we do have and are in the midst right now of implementing the severe repetitive loss pilot program that was authorized in the 2004 NFIP reauthorization. It doesn't really have a "three strikes and you're out" provision, but it does have a process that if a valid mitigation offer is made to a particular property owner and they turn down that offer, then their insurance premiums can be increased 50 percent. So it is the first time that the program has really ever had—we usually work cooperatively with incentives in the program. This is clearly a disincentive and is trying to use the stick approach with those that have been severe repetitive loss policyholders.

Mrs. CAPITO. In the grand scheme of things, I mean, this is just an off-the-wall kind of question, but, percentage-wise, would you say are individuals who are repetitive large loss in coming to FEMA? I mean, just kind of ball-park. I am curious.

Mr. MAURSTAD. I think it is around 8,000 of the 5.5 million policyholders fit into the definition that Congress put in the Act of severe repetitive loss.

Mrs. CAPITO. Thank you.

Mr. MAURSTAD. But they cause a large number of policy losses every year.

Mrs. CAPITO. Right.

Mr. MAURSTAD. They are a small number, but they are costly.

Mrs. CAPITO. They make their voices heard. Thank you.

Ms. NORTON. Let me ask both of you to respond to the criticism of your methodology in the prior panel and from complaints from the States. How do you define risk? To what extent is probability used? Do you use a historical approach largely? How do we know this is scientific?

Mr. STOCKTON. Let me take that, Congresswoman. We define risk as being the probability of an event occurring times the consequences. So if you have a 1 percent chance of accedence, that is your probability; and then the consequences have to do with type of property or lives that you are protecting behind that levee.

As far as the methodology that we use, both the FEMA method and the Corps method, the risk analysis method, they are very, very similar when they go through and the information that they collect to perform those analyses. The only difference is there is uncertainty in all the calculations we do; it is based upon statistics, historical record. There is a lot that we don't know, but we make the best—

Ms. NORTON. Is there a formula that you use?

Mr. STOCKTON. Absolutely. We use quite complex computer models to compute this. To determine what the flood profiles are for different level events, whether they are 100-year events or 500-year events, we can produce that, but it is based upon the period of record you have, the type of hydrology you have, the hydraulics of the channel, and it varies.

So the only difference in the two methodologies, really, is how you capture all that uncertainty. The FEMA approach just basically adds three feet of freeboard to capture that uncertainty; our approach that we use determines what the probability is, and we look for a 90 percent confidence level that that flood level will not be exceeded. In some cases that provides for less than three feet of freeboard; in some instances that provides for more than three feet of freeboard.

This approach has been recommended by the National Academies of Science. We have adopted this approach. It is not new; we have been using it since 1997. We continue to update our guidance, though, to make it clear, and more relevant as more models become available. But it is not new, and I think eventually the Corps and FEMA will have a similar approach.

Ms. NORTON. Just a moment. Corps and FEMA use different approaches about the same subject matter?

Mr. STOCKTON. There are two alternatives provided for in the Code of Federal Regulations, and they are fundamentally the same. The only difference is how we capture that uncertainty. One is a probabilistic approach, we use the risk analysis; the other is a de-

terministic approach where you just add three feet of freeboard to capture that uncertainty.

Ms. NORTON. I am going to have to take your word for it, but I do note that in the next panel Larry Larson, of the Association of Floodplain Managers, suggests that you “re-establish”—that is interesting—re-establish the Federal Interagency Floodplain Management Task Force. It makes me a little nervous to hear about differences between FEMA and Corps. Do you believe it would be good to have this interagency task force?

Mr. STOCKTON. Yes, ma’am.

Mr. MAURSTAD. First of all, we do allow the Corps of Engineers method for their projects. We recognize that. We work with them in partnership, and I would say we started very vigorously enhancing our partnership in August of 2005 with the Corps of Engineers and formed an interagency flood risk management committee where General Riley and myself and our staffs meet quarterly and are working towards making sure that we can better serve our customers.

Ms. NORTON. So you say there is already, in effect, an Federal Interagency Floodplain Management Task Force, is that your testimony?

Mr. MAURSTAD. No, that is not. What I was alluding to and leading to was the two agencies are now, and have been, working with developing a better cooperation so that we can better serve our constituents, and I can—

Ms. NORTON. Would you agree with Mr. Stockton that this would be a good time to re-establish the Federal Interagency Floodplain Management Task Force?

Mr. MAURSTAD. We value our partnership with the Association of State Floodplain Managers and we look to continue to have discussions with them on pursuing this suggestion.

Ms. NORTON. Particularly given the partnership, I would ask you to pursue that, if at all possible.

Let me quickly ask a series of other questions. We have one more panel we have to quickly get to. I am going to have to ask you about costs that are inevitably associated with flood mapping, particularly in the midst of the worst downturn in the economy in several years. The point, of course, the Subcommittee recognizes, is to prevent floods, and the mitigation you do, the mapping you do, the partnerships you do all are a part of that process.

Yet, we heard one Member of the Committee talk about the insurance as a flood tax speak of economic dead zones that had been created in his community by mapping, about the mapping had the effect of killing development in community. We know there is wholesale concern that development in some communities are going to stop instantly, if it hasn’t already stopped because of economic conditions.

Have you thought how to avoid undue costs as a result of the flood remapping?

Mr. MAURSTAD. Well, I think that we certainly look at the impacts. We are going to have economic cycles, certainly. One thing that is certain is floods are going to happen every year, and they are going to remain our number one natural disaster, and floods in those areas would be far worse than what the impacts are—

Ms. NORTON. Well, for example, the example I gave you before, the people who had just done, raised to the last level, and here comes a new level.

Mr. MAURSTAD. No, I need to correct that. The level was always three feet, since 1986.

Ms. NORTON. They just finished work. Maybe the level isn't where it should have been. Is there any grandfathering that takes into account work that has just been done?

Mr. MAURSTAD. That would be a slippery slope for us to recognize work that had been done that did not meet our regulatory standards.

Ms. NORTON. There was troubling testimony from Ms. Miller of Michigan about the lakes dropping 11 times, she testified, not rising, and yet elevations being required through the remapping. How would you respond to that criticism?

Mr. MAURSTAD. In a very general sense, I don't know the specifics, so I can't comment specifically, but lakes rise and lakes fall. When I was the regional administrator in Region 8, North Dakota was one of the States in the region. They have a lake up there called Devils Lake. Thirty years ago, I believe that lake was completely dry; now it is at about 48 feet and has caused considerable flooding since the early 1990s—

Ms. NORTON. Mr. Maurstad, I would agree with that, except the testimony was that it keeps dropping 11 times. I know the Chair of the Full Committee is concerned about the effect of climate change on the Great Lakes, so much so that they are having trouble getting boats in. And I am not suggesting that you could all of a sudden see the lake come up again, but where the dropping of water levels has been so consistent over so many years, you can imagine telling people you have got to elevate beyond where you were doesn't make much sense to them. Would there be any kind of communication or negotiation that would go on in a case like that?

Mr. MAURSTAD. Well, there is going to be communication, Madam Chair, and I would say, again, FEMA, we rely on the engineers, we rely on the Corps of Engineers, we rely on the private contract engineers to provide us with accurate data that reflects the one percent annual chance flood risk. That has to be sound, because ultimately we have to operate under the premise that it could be legally challenged. So the answer to your question is, yes, we would communicate, we would look at situations like this, and if the data was wrong, we would change it and correct it.

Ms. NORTON. All right. I think that the Great Lakes may be one of those instances where there needs to be perhaps some realistic understanding of what has happened over the Great Lakes over now a number of years consistently. The Full Committee Chairman, I think, will have to have his own meeting with you to discuss that matter because he is the expert there.

How much noncompliance, for lack of a better word, do you find with the remapping program? Do people generally get it done is what I am asking.

Mr. MAURSTAD. Yes.

Ms. NORTON. How about this year, in terms of the protests this year?

Mr. MAURSTAD. Well, there is no question that, as we have gotten into map modernization, one of the benefits, quite frankly, of map modernization and finally updating the maps after many years of neglect for funding reasons is because of all the discussion and communication that is going on throughout the Country on what their flood risk is. It is more sensitive in those areas where there are levees that are no longer providing the protection the people once believed they had.

So in those areas, yes, we are working through a number of challenging circumstances. But overall we are meeting our metrics. When Congress designed Map Mod, it said we will provide \$200 million a year for five years, but it is going to be performance-based; you are going to have metrics and we are going to expect you to meet those metrics, and we are on track to do that. We are very proud of that, in fact.

Ms. NORTON. Well, I don't envy the task you have and the protests you receive. Many of them are inevitable. It is not the kind of understanding of the program, the quid pro quos, that are involved that there should be, and I know you are making every effort at communication. I must say that FEMA was not quick to come forward after Katrina to ask Congress for changes to accommodate that special circumstance. I don't suggest that this is that special circumstance, but I am suggesting that essentially where the complaints came from were the areas of the Country.

And the post-Katrina act is not the result of the agency coming forward and saying we are interpreting this perhaps conservatively. If you want it interpreted differently, then perhaps there need to be changes in the statute such as X, Y, Z. Instead, you had to have Mississippi and Louisiana and others coming here long after the fact, and they complained bitterly, bitterly, of FEMA'S procedures, about how it was keeping development from occurring. They did it by a true indictment of FEMA.

In light of that experience, I am going to ask you to look closely at your statute and at your flexibility and at your procedures to make sure that you have the necessary flexibility, because I want to assure you this Subcommittee is prepared to quickly give you added flexibility, if necessary.

I very much appreciate this work is a huge challenge and, based on the work you have done, I have every reason to believe you will meet that challenge. Thank you for your testimony.

I am going to ask the next two witnesses to come forward. We are trying to complete this hearing in about another half hour. These two witnesses are equally important to this Subcommittee: Les Sterman, the Executive Director of East-West Gateway Coordinating Council, St. Louis, Missouri; and Larry Larson, the Executive Director of the National Association of State Floodplain Managers.

I am going to ask Mr. Larson to go first.

Could I ask you to stand and be sworn? Do you swear that the testimony that you are about to give is truthful, so help you, God?

[Witnesses answer in the affirmative.]

Ms. NORTON. Please begin, Mr. Larson.

TESTIMONY OF LARRY A. LARSON, EXECUTIVE DIRECTOR, NATIONAL ASSOCIATION OF STATE FLOOD PLAIN MANAGERS; AND LES STERMAN, EXECUTIVE DIRECTOR, EAST-WEST GATEWAY COORDINATING COUNCIL, ST. LOUIS, MISSOURI

Mr. LARSON. Thank you, Chairwoman Norton and the Members of the Committee. I represent the Association of State Floodplain Managers. We have about 11,000 members nationally, the vast majority of them working at the local level.

The issue of mapping of flood risk, especially that related to levees, is critically important to this Nation. We have a number of unsafe levees in this Nation and a number of high risk areas that we need to identify. I am going to talk about just a few areas briefly: the need to accurately map flood risk and hazards; the issue that levees and mapping and managing flood risk is a shared responsibility of all levels of government; and I will talk a bit about the level of protection issue, the one percent issue that you have raised a number of times.

FEMA, as they indicated, map flood risks for about 20,000 communities, and the FEMA program uses, as Mr. Maurstad indicated, the one percent standard to identify that hazard risk area. It is important for people to recognize that that one percent standard, or 100-year floodplain, is not a public safety standard. It is not a standard that says you will be safe if you use this standard; it says this is the standard that is used by the National Flood Insurance Program to run an insurance program that balances those issues that come into play in the Flood Insurance Program.

Is that a level of public safety standard? No, it is not. Is it a standard that should be used for structural flood protection measures, especially in highly urbanized areas with highly critical facilities such as hospitals and police and fire stations and the rest? As we saw in New Orleans, no, it is not adequate. So we need to think about a variable level of standard. But right now FEMA uses a one percent standard across the Nation for mapping all flood hazard areas.

I want to also point out that when a new map is issued, the end result is not always putting people in the floodplain, in that mapped floodplain; sometimes people come in, sometimes people go out. Our experience shows that, typically, when new maps are issued, there is pretty much a balance of those that come in and go out because you now have a more accurate depiction of the floodplain. So you always have what some people consider winners and losers. We don't consider the need to purchase flood insurance as a loser; it is really an opportunity. And, quite frankly, in most cases it is a low cost opportunity.

Showing the flood hazard on the map will not make the hazard go away if we don't show it on the map, so we need to make sure that people understand that it is important to show it on the map. If they want to be able for citizens and communities to take action, they need to know what the risk is.

Levees and mapping or managing flood hazards are a shared responsibility; Federal, State, and local. Typically, it is the local community that asks for a levee. The Federal Government may have built it for them, but it was their mitigation option that they chose. With that, they accepted the responsibility, in most cases, to oper-

ate and maintain that levee. If they did not do that accurately and adequately, they may now find that the Corps of Engineers comes in and says your levee is not adequate and can't be certified. If you had been maintaining it over the years, it probably would be. Those are all things that need to be considered.

Finding Federal funds to fix levees these days is very problematic, as you know, with Federal budgets, so coming up with other options to repair levees, to rehabilitate levees, to look at options for levees—as they are doing in the case of Sacramento, perhaps doing setback levees behind the current levee; building new levees, giving the river some more room—those are all options that need to be considered. There are programs that provide technical assistance for communities when the mapping process occurs and levees are decertified. The Flood Plain Management Services Program of the Corps of Engineers is one program to assist those communities that should be pursued actively.

We find that there are private sector investment firms interested in funding infrastructure these days. It is a much safer investment than the stock market at the moment, and perhaps a little better return than CDs. So there is a keen interest in hundreds of millions of dollars being available to help communities in infrastructure improvements, and levees seems to be one that now is open for that kind of discussion.

I will again—I know you asked about the Floodplain Management Task Force, the re-issuance and upgrading of the Executive Order to guide Federal investments and work in floodplains. Those are all things we support.

With that, I would be glad to answer any questions any of you might have.

Ms. NORTON. Thank you very much, Mr. Larson.

Mr. Sterman?

Mr. STERMAN. Madam Chair, Ranking Member Graves, and Members of the Committee, my name is Les Sterman. I am Executive Director of the East-West Gateway Council of Governments, which is a partnership of local governments in the St. Louis, Missouri-Illinois metropolitan region.

The St. Louis region is at the confluence of the Mississippi and Missouri Rivers. A large portion of our region's land area is protected by levees and other flood control facilities, some of which have been in place since the 1920s. Entire communities owe their existence and prosperity to these great rivers and the protection from flooding that we have carefully built over the last 80 years or so. About half a million people live in the Illinois portion of our region, and we now know that about 160,000 of them are in imminent economic and physical peril.

Last August 15th, Congressman Costello called a meeting and the Corps of Engineers revealed for the first time that they could not certify that what were formally 500-year levees along the Mississippi River in Illinois could withstand a 100-year flood event. This would mean that the entire area known as the American Bottom would be remapped as a special flood hazard area.

Like many older industrial cities, St. Louis has struggled to regain its economic footing in recent years. In Illinois we are experiencing an economic rebirth. Long-awaited, but now imminent ex-

pansion of industries like U.S. Steel and Conoco-Phillips, expansions worth literally billions of dollars in actual construction, is now on hold. New development has simply stopped dead in the American Bottom.

Perhaps most troubling, the American Bottom is home to some of the poorest and most physically and economically vulnerable citizens in our region. For most of them, flood insurance is not a realistic option at any price, and without flood insurance they will be unable to get a mortgage, unable to buy or sell a home, and unable to recover from a catastrophic loss from a flood.

Let me assure you that we take these actions by FEMA and the Corps very, very seriously. Since August 15th we have mobilized our local governments, who are very quickly taking unprecedented, cooperative steps to rebuild our flood control systems along the Mississippi River. Legislation will be considered by the Illinois General Assembly next week to impose a sales tax in three Illinois counties to raise as much as \$180 million for these repairs. Our goal is to rebuild our flood control systems in five years or less, an enormously challenging job, but one that simply must be done.

At the same time as we are pulling together to protect our citizens and our local economy, we are troubled by a number of serious concerns about how this situation has unfolded and the future participation of the Federal Government in helping us rebuild. My written testimony provides some detail, but I would like to just cover a couple of highlights of those concerns.

While the remapping process has been underway for some time, the revelation of the levee deficiencies was both sudden and shocking to local officials in our area. Public officials want to do the right things to protect the safety and livelihood of their citizens, but to ask them to fix a \$180 million in less than a year, especially one they didn't even know about, is not reasonable.

The manner in which the remapping process is unfolding across the Country leads to some irrational and very unfair outcomes. Our area, for example, is bisected into two FEMA regions, which are proceeding along different schedules in the remapping process. The remapping in Missouri is as much as three years behind that in Illinois. The citizens of Illinois, who will suffer truly Draconian outcomes from this process, will look a couple of hundred feet across the Mississippi River at their neighbors in Missouri, who will suffer no such outcomes. Congressman Costello sponsored an amendment to the National Flood Insurance Reform and Modernization Act, H.R. 3121, that rectifies this injustice. The bill did pass the House and is now pending in the Senate, and we strongly urge its passage with the Costello amendment included.

We know that we have to work together in a responsible way to reduce the risks of flooding, without compounding the problem by putting people and entire industries in immediate economic jeopardy. We don't ever want to create a situation where well-intended, but man-made government action is creating hardship every bit as threatening as the acts of God that we want to protect against.

I thank you for the opportunity to testify and I would be pleased to respond to any questions you may have.

Ms. NORTON. Thank you very much. First, let me ask do you perceive significant, either of you, financial dislocation in terms of con-

struction or other dislocation that attend the remapping? I am concerned, for example, Mr. Sterman, that you said it was stunning, the changes that were needed were sudden, with Draconian outcomes. Would you elaborate on that, please? Why was it sudden? These were not apparent, that these changes would be needed? What was unexpected?

Mr. STERMAN. The remapping process was certainly not unexpected.

Ms. NORTON. No.

Mr. STERMAN. The local government has been participating in that for a number of years. What was unexpected was the decertification of—we have 500-year levees along the Mississippi River that have historically protected hundreds of thousands of people and industries. The Corps announced, on August 15th—and this was evidently a surprise to FEMA as well—that they could no longer certify those levees to withstand a 100-year flood. We were not expecting that.

Ms. NORTON. And those were 500-year levees?

Mr. STERMAN. Yes.

Ms. NORTON. Now, do you think Katrina had to do with that? What in the world led to that?

Mr. STERMAN. I don't know that Katrina led to it, per say. These were noted as "design deficiencies" by the Corps of Engineers, so it is the design process. The Corps' design process has improved over many years since those levees were built. They were evidently maintained adequately, but simply no longer met current standards that the Corps is using. There was a significant change.

We withstood the flood of 1993, which was a 300-year event. We did that with the help of what is known as flood fighting. Folks got out there with sandbags; sand boils came up from under seepage; and the levees held fairly successfully. Under the current standard that the Corps is using, at FEMA'S direction, flood fighting activities like that will no longer count in assessing the adequacy of the levee. So the levees need to withstand without human intervention that flood. We weren't expecting that kind of outcome at that time.

Ms. NORTON. Could I ask you on the fact of the use of sandbags, human beings helping to control floods. Do both of you consider that that is in keeping with modern flood control, that it was time to let that go, or do you think that that causes needless expense?

Mr. STERMAN. Well, we think flood fighting is a standard, well worn practice in this business. It has been practiced for many years. It is sandbagging around sand boils; it is reinforcing behind floodgates. Those are things that can be planned for. We do have, along the Mississippi, significant advanced notice when floods will be occurring, so people and the forces are in place ready to do that. But that kind of activity no longer counts in certifying a levee.

Ms. NORTON. I am going to ask Mr. Graves if he has any questions.

Let me go on, then.

You say, Mr. Larson, that the standard, the one percent standard, is not a public safety standard, but an insurance standard.

Mr. LARSON. Correct.

Ms. NORTON. Is it an appropriate standard?

Mr. LARSON. One thing we looked at in our analysis was that probably using a uniform standard across the Nation does not make a lot of sense because of what Mr. Stockton talked about: risk is variable. If you are protecting a cornfield, it is one thing. If you are protecting a highly urbanized area such as Mr. Sterman has talked about here, that 500-year level of protection makes a lot of sense. It is important, by the way, to understand that a 500-year flood is not five times larger than a 100-year flood. In the St. Louis area it is about a foot of difference, a foot in height of difference.

Ms. NORTON. But, of course, if you are doing new construction, that could make a lot of difference.

Pardon me. Go ahead.

Mr. LARSON. So it is important that we look at those highly urbanized areas and say we need to provide greater than one percent chance level of protection for low—

Ms. NORTON. You know, it seems so common sense. Why, then, is there this universal one percent standard regardless—

Mr. LARSON. Well, prior to the NFIP, the Corps of Engineers typically built higher levees, such as there were in East St. Louis, typically 500-year standard project flood, those kinds. But once the NFIP came in and communities figured out that all they really needed was 100-year levee to get out of insurance and regulation, levees started to get dumbed down in the Nation, and that wasn't a positive step.

That is one of the problems with having the magic line. If we had universal flood insurance requirements, that magic line between 100 and nothing wouldn't make any difference. Right now it is an all or nothing line, instead of a graded line that says your risk is variable and how you deal with that should be variable. We don't do that in this Nation, but we need to get to that point.

Ms. NORTON. Does flood remapping encourage maintenance of levees, dams, et cetera, over the years?

Mr. LARSON. Well, it should encourage it.

Ms. NORTON. But, in fact, did you find that there was great non-compliance with maintenance upkeep?

Mr. LARSON. Yes. What happened in Katrina was two things. Since then—it is somewhat Katrina, but it is also evolution over time. Both the Corps and FEMA realized that they were not dealing appropriately with levees. FEMA had not been looking carefully at levees when they mapped an area to determine if that levee was really adequate. The Corps, in its inspection program, had been issuing letters to communities for a number of years saying you are in the program, but your operation and maintenance is deficient; you should do this, this, and this. In some cases they issued those letters for 10 years in a row but never kicked the community out of the program. Now they have religion, after Katrina, and said we need to make sure communities have safe levees, and now I think you are seeing some of the results of that.

Mr. STERMAN. The remapping process certainly got our attention. I mean, we have been moving since August 15th of last year to rebuild these levees. We are not waiting for the Federal Government or the Corps of Engineers to come in and do the job; that will take too long. We are looking to raise \$180 million locally, take the bull by the horns and get these levees repaired. We know we are pro-

protecting people's lives; we know we are protecting literally billions of dollars in economic assets. We have got to get moving.

Mr. NORTON. Well, that, of course, speaks positively to what they are doing. I understand that, with all the priorities that States have, it is easy enough to say, you know, the levees look like they are doing fine for now and I need some money for public education.

I am trying to get a grip, though, on financial dislocation. We have heard this hypothetical: there are changes, like you can't use the sandbags anymore; or we haven't been in the floodplain before. Now, let's say we are doing what Mr. Sterman says, we are going to fix it. Meanwhile, it appears that if you are doing, for example, new construction, you have to build higher than you would have to build if in fact the levee were fixed that is now being fixed. So you will hear complaints, my goodness, construction is there permanently. Once we make this investment, that is a substantial addition to the cost of construction.

Is there any flexibility you could suggest to keep new construction—I am concerned about the economic turndown—from essentially having to add what could be millions of dollars in construction that will be unnecessary because the community is doing what Mr. Sterman says, they are moving in there to fix the problem? How can we deal with costs that may prove unnecessary?

Mr. LARSON. Well, I don't see those costs as unnecessary. This all-or-nothing view of levees that says if we have got a levee, we have to do absolutely nothing has been part of what has led us down this road. So doing something behind a levee is not necessarily a bad thing.

Ms. NORTON. But I am not talking about the levee now, I am talking about someone who has to now do something about construction as the levee is being fixed.

Mr. LARSON. I understand that. You know, we have thousands of miles of identified floodplains in this Nation, and there is construction occurring in them all the time, and it takes into account flooding. Those are areas that aren't protected by levees. So if construction isn't stopped there by the identification of a floodplain, why would it be stopped behind a levee? Are there added costs? Yes, there are added costs, but it is a risk area. So I think there is a balance there. I understand people see that and sometimes perceive that as a "unnecessary cost." I don't believe that it is.

Mr. STERMAN. Madam Chair, I think that this is one of the most important questions in this whole process, is the economic impact. We are finding, in our areas, when people are faced with those increased costs of development, they are simply choosing to go someplace else to build. In our area there are other places to build.

The economic impact to us, even if we are able to make our self-imposed standard of five years to get these levees fixed, could be in the billions of dollars just in industry that is foregone in our region; and the impact on individuals will be substantial as well. And all this, frankly, to most of our citizens and businesses seems rather arbitrary; one day everything was fine and the next day, with the waving of a pen, it is not fine anymore and all of our plans get changed and literally billions of dollars of economic impact have to be absorbed by our region.

Ms. NORTON. The difference, I think, between you, Mr. Larson, and Mr. Sterman, you are a true, Mr. Larson, floodplain expert. Mr. Sterman, I think, speaks for how people develop. Government doesn't have to do with that and people have——

Mr. LARSON. Government does do with it. In the end, it pays disaster costs.

Ms. NORTON. No, no, no. See, forever the floodplain man. The way in which development occurs in places like St. Louis and, for that matter, the District of Columbia, is developers decide among their choices. Anything that adds to the cost has to be taken into account. Our Subcommittee, of course, has jurisdiction over Federal construction and we see it everyday, and we are going to have a hearing on the credit crunch and what effect it may have on commercial real estate, which we are now beginning to see happen.

I don't mean to pose this as a reason for stopping remapping. I do mean to say that, even without using the R word, something pretty bad is happening in this Country at this time, and there are people throughout the United States that are particularly concerned about whether or not development will continue in their community. That means, to be clear, construction of various kinds by the private sector; not by government, by the private sector.

But if I may say so, there are people who bid on government work who are bidding less today. One of the most fast developing cities is the city that I represent, where you now sit. New ballpark, building on every blade of grass. But when I ask people about it, they tell me the way in which commercial development takes place is people have gotten their financing long before any recession sets in.

I went to a reception in advance of the first game and we went on the top of the building owned by the Lerner's, who are the owners of the ballpark, and it has this wonderful view of Washington, one of the great views of Washington, and I looked down and I said, what is being built there? Because there was a hole that hadn't been built up, and it is surrounded by all kinds of buildings that are going up. And I was informed, Congresswoman, that is a hole in the ground. One of our leading construction companies was ordered to stop, it was to be a hotel. We love hotels. It is not a government building, the company was ordered to stop because the hotel had "lost," had lost its financing.

I don't know if this Subcommittee can do anything about it, but I am steadily trying to find out as much as I can about it, because to the extent that there is anything we can do about it, I think we ought to make recommendations or somehow do what we can. Many are absolutely petrified that the Administration has become so concerned that it has become activists in the marketplace.

So may I ask you to think about that subject, Mr. Larson, because he brings a very important view to this matter, and that is remember what the costs will be if you do not proceed? And you don't have to think about Katrina to think about that; all you have to do is think about what is happening, as I speak, in the Midwest. If you want to talk damage, all you have to think about is what is the most common hazard in the United States of America, and you will come up with the word floods. And you are speaking to a Member who represents the District of Columbia, who saw floods

in one of our communities, to which we could only say, what? Floods that come from hurricanes and hurricanes you have in communities like this that don't even have much in the way of hazards.

So this Committee has jurisdiction over FEMA. It does not mean to mitigate that concern at all. Normally, the concern that Mr. Sterman raises would be of concern to us. It is of particular concern to us today. We do not believe that this is an ordinary kind of downturn of the kind we have seen for the last several years. We had one in, what, 2000? This has been an extraordinary economy.

I was with the Speaker in India. We went to London, India, and Barcelona. There was talk of—and here we are on a climate change trip and, of course, in India talking about the U.S. nuclear deal, but everywhere we went there was not only concern, but stark evidence that what was happening here, sub-prime now spreading to other parts of the economy, had definitely spread to Europe, was definitely in India, where the Indians were looking for other funders now, funders other than Europe, other than the United States.

So I am in a mood to take very seriously what is happening to the economy. I understand, we all appreciate that this is a cyclical economy. We know it will snap back. We know how strong it is. We don't want to be part and parcel of worsening it at the same time that the Administration and the Congress is trying to relieve the effects on the economy through the mechanisms they have. We mean to be in harmony. We do not know how to do that.

So I am not here saying, therefore, fill in the blanks. I am saying that with the very important testimony you have brought to the table, I am asking you to think about this subject in light of the twin risks, the risk of not proceeding rapidly—because the one thing we know even less about than the economy is what the next hazard will be—and the risk of a downturn that we may, ourselves, have aided and abetted by not being sufficiently flexible in thinking through this process that we are now going through.

I want to thank each of you for really very important testimony that this Subcommittee will take into full account. Thank you again for coming.

The hearing is adjourned.

[Whereupon, at 11:23 a.m., the Subcommittee was adjourned.]

**Subcommittee on Economic Development, Public
Buildings and Emergency Management**

**Hearing on “National Flood Plain Remapping: The Practical Impact”
Tuesday, April 2, 2008**

Statement – Congressman Jason Altmire (PA-04)

Thank you, Chairman Norton for calling today’s hearing to discuss the Federal Emergency Management Agency’s (FEMA) Flood Map Modernization Program.

Created in 2003, the Flood Map Modernization program is tasked with updating and digitizing the nation’s flood maps. These maps, which were documented in the late 1960’s, highlight communities across the nation considered to be flood prone. Inclusion in a so-called “flood plain” results in the residents and businesses of the community having access to federal flood insurance.

As we all know, considerable land development and an ever changing topography have led to a number of additional communities becoming flood prone, thus dramatically increasing the importance of the modernization effort. It is the responsibility of Congress and more notably this subcommittee to ensure that the nation’s flood maps are completed quickly and accurately, so that residents and businesses located in any one of the over 20,000 flood prone communities across the country have access to needed insurance policies.

Flood planning efforts are of particular importance to me. Last year, my constituents residing in Aliquippa, Natrona Heights, and the A.K. Valley experienced severe flooding which damaged a number of their homes and businesses. Unfortunately, even though these areas sustained thousand of dollars in flood damage, it did not reach the threshold required by the FEMA to be declared a disaster area. This resulted in the communities obtaining very little relief from the federal government and having few options to assist in rebuilding.

Madam Chair, I look forward to learning how the Flood Map Modernization program can assist areas such as mine and thank you again for holding today’s hearing.

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**Statement of Congressman John Hall Before the U.S. House Committee on Transportation
and Infrastructure Subcommittee on Economic Development, Public Buildings, and
Emergency Management
“National Flood Plain Remapping: The Practical Impact”
April 2, 2008**

I would like to thank the Committee for having this hearing, and for inviting me to testify about an issue of vital importance to towns and cities throughout the country.

I would like to begin by noting specifically that I am glad the Committee has chosen to title this hearing “National Flood Plain Remapping: The Practical Impact”, because if there is one point that my testimony makes to the Committee today, I hope it is that this process will have a real and significant impact on the daily lives of people in my district and elsewhere.

The results of this process will impact the value of people’s homes, the costs to maintain them, and the fate of homes and businesses unfortunate enough to be affected by future floods.

As we have seen in recent years, extreme weather events are occurring with alarming frequency. Too often, these events create flooding that leaves homes battered, businesses reeling, infrastructure broken, and communities devastated.

My district, in New York’s Hudson Valley, has been far from immune. Floods have had an incredibly destructive impact on the Hudson Valley, and in recent years the flooding has become so frequent that town supervisors, farmers, and homeowners have reason to look over their shoulders or up at the skies every time it drizzles.

The region has experienced three “50 Year” floods in this decade alone. That rate of activity strains the ability of emergency services to respond, communities to recover, and local resource managers to prepare.

The full force of flooding impacts became evident a year ago during last April’s Nor’easter. The rains only lasted a weekend, but the damage is still being repaired. Roads were washed out, fields submerged, and homes and businesses were damaged. After those storms FEMA made a disaster declaration opening the way for assistance, but it’s clear that we need more than an ad hoc approach to prevention, mitigation, and recovery.

Unfortunately, recent history and the forces of climate change leave us with too much uncertainty to simply hope that these events are anomalies that will soon be remembered only as historical quirks or weather channel trivia. It is clear that our government must take steps to be prepared for future events.

One of the most challenging consequences will be the modernization of the National Flood Insurance Program and the update of the National Flood Plain Map. As FEMA moves forward with this process it must take a methodical, comprehensive approach that will be effective, fair, and avoid undue cost to taxpaying homeowners.

A large part of this process should be the provision of avenues for communities, particularly those that will be newly included in the flood plains, to voice their concerns or protests with FEMA without undue burden.

Several communities in Orange County, New York would be included in the flood plain map and forced to purchase insurance for the first time under the preliminary Flood Insurance Rate Map (FIRM) regarding Base Flood Elevations (BFE) within Orange County, New York. The data needed for an appeal of the draft would require hydrologic and hydraulic studies that must be paid for by individual homeowners or local governments.

Despite the highly technical and costly nature of these studies, FEMA allows only a 90 day comment period. 90 days may be a standard window here in Washington, DC for federal officials, but for homeowners struggling with property taxes and small towns with limited expertise, that's a fast turnaround.

Although FEMA has since informed my office that the review process in one city will allow other communities to register protest until late May, these procedures are hard to navigate and need to be made more accessible to the stakeholders who will have to live with impact of the new flood plain map on a day to day basis. In either instance, it would not be feasible to finance and conduct these studies before the current public comment deadline.

I am not suggesting that towns and cities should be able to skirt inclusion in the flood plain if it is truly warranted. But if there are local concerns that inclusion is unjustified or detrimental it should be easier for communities to make their case to FEMA directly.

Efforts to update the National Flood Insurance Program are right to account for changing circumstances, and the new map should take prospective factors into account. Specifically, the human factor of local growth and the environmental factor of climate change must be taken into account. Both will directly impact flood activity in my district.

Orange County, New York is one of the fastest growing areas in the state. We are proud that more people are choosing to make the county their home, and are working hard to manage the development that their presence requires. The region is also blessed with abundant streams and rivers that may exhibit changing characteristics as sea levels, precipitation activity, and other factors react to our changing climate.

As FEMA moves forward it needs to find ways for the new flood map to recognize the need for growth and extend protection to vulnerable communities in order to prevent the blessing of our water resources from becoming a curse.

I thank the Committee for examining this issue, and look forward to working with my colleagues, FEMA, and the Army Corps of Engineers to ensure that FEMA's update of the National Flood Plain Map is responsible, effective, and in the national interest.

STATEMENT OF
THE HONORABLE ELEANOR HOLMES NORTON
APRIL 2, 2008
SUBCOMMITTEE ON ECONOMIC DEVELOPMENT, PUBLIC BUILDINGS, AND EMERGENCY
MANAGEMENT
NATIONAL FLOOD PLAIN REMAPPING: THE PRACTICAL IMPACT

Welcome to all the witnesses with us this morning. I extend an especially warm greeting to those members of the Transportation and Infrastructure Committee who have taken the time to appear before the subcommittee to present their views and ideas on the new federal flood maps and impact these new maps will have on their communities and constituents.

According to the Federal Emergency Management Administration (FEMA) website floods are one of the most common hazards in the United States. We need only to read our local papers to see the ravaging effects on Mid-West communities due to recent floods. Flood effects can be local, impacting a neighborhood or community, or very large, affecting entire river basins and multiple states. The flooding in the aftermath of Hurricane Katrina in New Orleans provides an indelible image of the devastation that can be caused by flooding, and vacant ninth ward provides a constant reminder of that devastation.

The National Flood Insurance Program (NFIP) has its origins in 1968, with the National Flood Insurance Act. The purpose of the program was to control for the devastation incurred from floods. Although the program started in HUD, the Federal Insurance Administration moved to FEMA when it was created in 1979. The program is

now part of the Mitigation Division at FEMA. FEMA is the natural home for this program as floods are the greatest natural hazard faced by communities.

The National Flood Insurance Program (NFIP) works “hand-in-glove” with FEMA’S efforts in disaster preparedness, response, recovery and mitigation. The program gives incentives to help communities identify and reduce flooding hazards, and take steps to mitigate the damage to property and risk to lives from floods. Ultimately these steps reduce the need for federal disaster assistance under the Stafford Act.

Approximately 90 companies sell flood insurance policies on behalf of FEMA. Approximately 20,000 communities participate in the NFIP which is about 98% percent of the country. The program provides about 5 ½ million policies with over a \$1 trillion dollars worth of coverage. Starting in fiscal year 2004 FEMA was appropriated an annual \$200m for five years to upgrade and modernize the flood mapping program.

Because flood hazards change with time flood plain remapping is an integral part of the program. Changes occur due to physical changes in the topography caused by such things as wildfire, erosion, and infrastructure construction. Statistics, which is the building block of remapping, tracks changes in rainfall, flood water levels, and high water marks. In addition, the technology and statistical models are continually improving and being upgraded.

Floods hazards are present in all fifty states and here in D.C., and are especially common in a low-lying areas, near water or downstream from a dam. It is not uncommon to view small streams or low-lying ground that appears harmless in dry weather turn into floods after a heavy rain or significant snow fall.

As we are very painfully aware, floods are also caused by failed levees. After the failure of the levees in New Orleans after Hurricane Katrina, the U.S. Army Corps of Engineers made it a priority to assess the levees across the nation to ensure that local governments could apprise their citizens of the risks involved in being located in a flood plain.

Floodplain management has been developed as a community effort of corrective and preventative measures aimed at reducing flood damage. Communities have at their disposal an arsenal of local tools such as zoning, subdivision planning and building codes, commercial building codes, permitting, and special-purpose floodplain ordinances to help develop effective floodplain management plans. A community's agreement to adopt and enforce floodplain management ordinances, particularly with respect to new construction, is the communities' agreement with the Federal Government in order to make flood insurance available to home and business owners. As I previously stated currently over 20,100 communities voluntarily adopt and enforce local floodplain management ordinances aimed at flood loss reduction. FEMA estimates that these measures prevent about \$1.4 billion in property losses each year, not only protecting lives and property but reducing the costs to the taxpayer to reduced disaster assistance under the Stafford Act.

This morning we will hear from members whose districts have been affected by the new remapping effort, but also from FEMA and the Army Corp as they explain how and why the process works.

STATEMENT OF
THE HONORABLE JAMES L. OBERSTAR
SUBCOMMITTEE ON ECONOMIC DEVELOPMENT, PUBLIC BUILDINGS, AND
EMERGENCY MANAGEMENT
HEARING ON NATIONAL FLOOD PLAIN REMAPPING: THE PRACTICAL IMPACT
APRIL 2, 2008

Thank you Chairman Norton for holding this hearing on an issue that affects virtually all members of Congress. Similar to many of our congressional colleagues here this morning, I have had recent personal experience with the ravages of flooding. As you know last fall in my home state of Minnesota we witnessed extensive and damaging floods.

On October 2, 2007 I spoke on the floor of the House to express my heartfelt sympathy to my fellow citizens in Minnesota in the wake of the massive flooding due to Mother Nature's wrath, and to commend the police officers, firefighters, and emergency medical personnel who placed themselves in great danger during that disaster in order to protect the citizens of Minnesota.

A quick read of virtually any newspaper highlights that floods are among the most common disasters to take place in the United States. The Federal Government, working with local governments, identifies flood hazards and produces maps that characterize the risk associated with flooding.

As one of our witnesses states in his testimony today, flooding is the costliest threat from disaster our nation faces. To address this threat, the National Flood Insurance Program ("NFIP") was created by Congress in 1968. The program originally housed in the Department of Housing and Urban Development was moved to FEMA when that agency was created in 1979. The NFIP directs FEMA to establish the appropriate flood risk zones, reflect these determinations on flood maps, and establish mapping standards.

The NFIP provides assistance to communities through all the phases of emergency management that is, preparedness -- response -- recovery and mitigation, and does so in conjunction with the Stafford Act. Initially the program helps communities prepare by providing incentives to participate in returning for improved zoning and other ordinances communities received subsidized flood insurance. Specifically, the mapping requirements we will hear about today, helps communities prepare for floods by helping to predict where flooding will occur and its severity. This in return helps responders know where people need to be taken out of harms way or rescued and where flood fighting efforts need to take place. The NFIP helps in recovery by providing payments to policy holders above and beyond what disaster assistance under the Stafford Act will cover and by transferring these costs from the Federal taxpayers to insurance rate payers. It should also be noted the NFIP pays

numerous claims each year for events that do not warrant Federal disasters assistance under the Stafford Act. The NFIP and the maps it requires also help mitigate damage to property and risks to lives by identifying and mandating steps communities can take to rebuild safer and smarter either after a flood, or we hope, before a flood strikes a community through various programs. Again this assistance works in conjunction with the Hazard Mitigation Grant Program and the Pre-Disaster Mitigation Grant Program under the Stafford Act. .

The risks zones in the NFIP use a 100-year flood plain as the regulatory standard that mandates coverage in the NFIP. A 100-year flood represents a one percent chance of a flood happening in any given year. The risk associated with any flood plain is based on a statistical analysis of such things as historical records of water heights, rainfall, soil conditions, infrastructure, and drainage systems. After enactment of the 1968 flood insurance program, the Federal Government, in cooperation with state and local governments, quickly mapped the flood hazard zones for most of the country.

Although the NFIP is sponsored by the Federal Government, private insurance companies sell policies to individual homeowners and service their

claims. More than 90 private insurance companies sell and service NFIP policies. This is a public – private partnership that has served our nation well.

I am eager to hear from our witnesses this morning and hear in more detail about the efforts of the remapping program.



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TESTIMONY

Association of State Floodplain Managers, Inc.

before the
House Transportation and Infrastructure Subcommittee on Economic Development,
Public Buildings and Emergency Management

National Floodplain Remapping: The Practical Impact

Presented By:
Larry A. Larson, P.E. CFM
ASFPM Executive Director

April 2, 2008

Background

The Association of State Floodplain Managers (ASFPM) envisions a number of key legislative policy changes to strengthen the nation's programs to reduce flood losses. Today we focus on programs of the U.S. Army Corps of Engineers and the Federal Emergency Management Agency that were established by Congress to reduce future loss of lives and property due to flooding. We appreciate the opportunity to discuss those with you today.

ASFPM and its 26 Chapters represent over 11,000 state and local officials and other professionals who are engaged in all aspects of floodplain management and hazard mitigation. These include land management, mapping, engineering, planning, building codes and permits, community development, hydrology, forecasting, emergency response, water resources and insurance. Many of our members work for or with communities struggling to reduce their losses from flooding. To do that effectively communities need maps that accurately depict flood risk. All ASFPM members are concerned with working to reduce our nation's flood-related losses. Our state and local officials are the federal government's partners in implementing programs and working to achieve effectiveness in meeting our shared objectives. For more information about the Association, please visit <http://www.floods.org>.

The recent tragedies on most of the Gulf Coast and the major riverine flooding are reminders that we are very susceptible to natural hazards – especially flooding (the costliest natural disaster in the U.S) – and that we must have programs, policies and institutions that can adequately handle these events, efficiently use taxpayer money, and build a more sustainable future. Nothing less than our nation's prosperity and economic security are at stake. The Congress and this Committee are at the center of this discussion with an opportunity to make policy changes that can have importance and relevance far into the future.

Some Historical Perspective

While the devastation in the Gulf Coast from Katrina-Rita-Wilma was unprecedented in recent US History, the history in our nation and the world provide ample evidence that large natural disasters occur frequently and with a vengeance. Whether we are discussing tsunamis, hurricanes, floods, wildfires, or earthquakes, natural hazards remain a primary force that can bring about catastrophic consequences to every region and state in the United States.

All of us will contribute our tax dollars to disaster recovery relief from natural disasters and to the rebuilding of flooded areas. We must build and rebuild in a way that reduces the risk of loss due to flooding and hurricanes in the future, and the human suffering that follows. It also makes sense to invest taxpayer dollars for accurate flood maps so communities can reduce flood damage exposure to the taxpayers.

The nation has ignored critical infrastructure, including levees, for years. Some forget that infrastructure includes levees, just as it includes roads, bridges and water and sewer facilities. The purpose of levees is to provide basic public

safety, which is a primary function of local and state governments. While levees provide protection for some floods, when they fail or overtop, the consequences are usually catastrophic and the costs are often picked up by the taxpayers.

In the past several decades, the Federal government has been shouldering an increasingly larger share of the cost for flood control infrastructure. Yet, operations and maintenance of these systems is a non-federal responsibility – even for those built with federal funds. With the convergence of the aging infrastructure, mapping and remapping flood risk areas, and the demographic shift to coastal and floodprone lands, it is imperative that states and communities bear a portion of these costs.

Recommendations

The specific recommendations ASFPM is making to the Committee are:

1. Mapping the true flood hazard is critically important to public safety. FEMA produces flood hazard maps for 20,000 communities in the nation. These maps are the basic tool these communities need to guide development and re-development to be safer from flooding. These maps are also used by communities to analyze how to mitigate at-risk structures so that damages from the next flood are reduced. FEMA is in the middle of an ambitious and important effort to modernize and update the nation's flood maps. Prior to the Map Modernization Initiative, most of the maps were actually 10-20 years old. Watershed development activity and natural phenomena change flood risk, so mapping must be continually updated to reflect true flood risk.

Due to the flood map modernization program, there has been an effort made to reflect the true risk of areas protected by flood control structures (levees, etc.). This effort has already had significant impacts nationwide. From the Natomas basin in California to the National Mall in Washington D.C., flood maps are being updated to reflect the true flood risk and are forcing us as a nation to identify how we want to proceed with the development and habitation of our country's flood prone areas. In most cases, it is not a single solution; rather, a multi-pronged approach. As communities are mapped, FEMA is looking closely at all levees to ensure they will provide the level of protection they were designed for, and to determine whether or not they meet the standards for protection from the 100 year flood. If they do not meet the standards, the area behind (or "protected") by the levee is mapped as a flood hazard area, which is the true risk.

This true risk mapping is very important, so citizens and communities are aware of their risk, and can take actions to reduce that risk. Those actions may include strengthening the levee, elevating or relocating structures or other mitigation measures. The Corps of Engineers is an active partner in this mapping process, especially where levees exist. In most areas, the Corps is the entity which will evaluate whether or not the levee meets the criteria for 100 year protection. Furthermore, the Corps is developing an inventory of all the levees in the nation--critical information we have not had to assist us in managing and reducing flood

impacts. That inventory should provide us with the location and ownership of all levees, the number of miles of levees we have in the nation, and information on the general condition of all levees. With this, we will know the size of the levee problem so we can start to formulate solutions.

2. The nation needs a National Levee Safety Program. The WRDA bill that Congress just passed directed the USACE to establish a National Levee Safety Committee made up of Federal/State/Regional/local and private experts who would recommend how such a Levee Safety Program should be governed and structured. The bill indicated the program should provide for delegation to the states, and should include incentives and disincentives for state involvement. That effort is just underway, and recommendations to Congress for program governance should come soon, enabling all of you to decide the future of this key program. I do want to mention that the expectation is that the Levee Safety Program will not mirror the Dam Safety Program, which has not built state and local capability.

3. The nation needs an integrated and unified federal/state/local approach to managing flood losses, including levees. Flood losses and disasters can not be successfully managed and reduced by any single level of government or the private sector. It will take a unified program involving them all. While significant federal funding has flowed to flood projects and especially to disaster relief after flooding, the major tools to reduce flood risk lie in land use and building codes, areas in which the federal government has no authority under our Constitution. Those actions are the purview of State and local governments. The private sector has an increasing awareness of their role when making business decisions - incorporating location and flood mitigation actions. Flooded facilities interrupt business even if the business is not flooded. If workers cannot get to work, or suppliers cannot provide inventory, businesses may have to close for weeks or months, incurring major losses or going out of business.

Numerous federal agencies deal with levees with different programs in different ways. The Corps of Engineers and NRCS build levees for different purposes with different guidelines. FEMA produces flood maps for 20,000 communities in the nation, many of which have levees. How to determine if those levees are adequate, and how to map the areas behind those levees must be done by integrating the programs of all federal agencies along with state and local partners who either build or operate and maintain thousands of miles of levees.

ASFPM applauds the efforts of USACE and FEMA over the past 3 years to work together to integrate their programs and policies. This level of federal coordination has not existed since the Federal Interagency Floodplain Management Task Force was active. It met regularly to discuss actions of each of the 26 federal agencies having an impact on flooding. The Task Force periodically issued updates of a report called the "Unified National Floodplain Management Program". I urge this committee to encourage FEMA and USACE

to re-establish this effort, and to engage all the appropriate federal agencies in implementing integrated policies that will reduce the nation's flood damages and suffering.

4. Adequate Operation and Maintenance (O&M) of levees is a critical requirement of levee certification. Once a levee is built, proper O&M of that levee must be done, just as it is done with bridges, roads and water supply. While there are many levees that were not designed and built to safe engineering standards, there are also far too many levees that may have been built adequately at the time, but which have not been properly maintained over the years. No engineer, either Corps of Engineers staff or private engineer will certify a levee as adequate if it cannot be determined that it was properly designed and constructed, or is properly maintained. The Corps of Engineers has developed proper guidance for inspecting and certifying levees that the engineering profession uses. Legal experts have informed us that levee owners will almost always be liable for damages should a levee fail, thus pointing out the importance of the efforts of FEMA to map levee residual risk areas and of the Corps of engineers to properly inspect and evaluate and to certify levees only when all safety standards are met.

5. Levees provide a "false sense of security", impeding personal responsibility. Most people who live or work behind a levee believe they are protected from all flood events. A levee only "buys down" a portion of the flood risk. Those who believe they are protected by structural works and hence think they are not at risk need to know they are and that there are other measures to protect lives and property and provide financial security. Hundreds of thousands of properties exist in residual risk areas behind levees, below dams or in storm surge areas. These measures include the purchase of flood insurance and elevating or relocating structures. To protect lives, proper evacuation plans should be developed by communities and each family.

Not only will this protect individuals, it will protect communities and the nation's taxpayers from the consequence of catastrophic damages when those flood control structures fail or are overtopped from larger events. The mitigation and insurance measures need not be expensive, because even small measures and amounts reduce the pool of damages and claims. In addition, a small annual "preferred risk" insurance premium (\$120-300/year) provides those property owners with yearly evidence and awareness that they are actually subject to flood risk

6. The flood maps are out and show the levees are not adequate – now what? In the flood mapping process FEMA and the Corps work together to show the true flood hazard, including whether any levee involved is adequate. When it is not, the area behind that levee will now be shown as a flood hazard area. **Where flood maps show levees not being adequate, mechanisms need to be implemented to systematically identify options.** While there may be many different options on how a community should proceed, they are often not known or poorly understood by the community.

- a. **Technical assistance to communities and states.** Communities with levees need technical assistance to help determine: 1) Is their levee safe; 2) how to properly operate and maintain that levee; and 3) how to develop and analyze the various structural and non-structural options in the event their levee is not certified as adequate. The Corps of Engineers has two programs which provide technical assistance to communities and states (these are small but important programs of technical assistance, outside the Corps' "water resources projects" program) **Flood Plain Management Services** is currently authorized at \$15 million and **Planning Assistance to States (PAS)** is authorized at \$10 million. Both programs have been consistently under funded, severely limiting the ability of the Corps to provide locals and states this needed technical assistance. ASFPM recommends that the Committee not only urge the Appropriations Committee to fully fund these programs, but that the Committee significantly increases the base authorizations for both programs. These programs offer the counties and communities of the nation the opportunity to benefit from Corps expertise in developing "bottom up" solutions to their flood loss mitigation issues. Local jurisdictions need the technical assistance provided by Corps expertise, not only for major structural projects, but to develop non-structural or integrated structural and non-structural remedies as redevelopment takes place.
- b. **A robust toolbox of options for flood mitigation.** When a levee has been decertified, the options for the community include rebuilding and upgrading the levee, or using the existing levee for protection from some flooding events, in combination with flood insurance and elevation or relocation of new and improved structures. Levees that are set back from the river or coast can be smaller and less costly, while providing room for natural flooding to occur without adverse impacts. Grand Forks, ND is a community that used this levee set back approach successfully. FEMA has a number of mitigation cost sharing programs for non-structural mitigation options that many communities utilize.
- c. **Funding for levee improvements and mitigation**
Funding to rebuild levees may come from a variety of sources. The historical means has been through the Corps of Engineers Water Resource Project authority. This process takes years, appropriately requires a non-federal cost share and is increasingly difficult as the federal budgets become tighter. Funding can also come entirely from local/state or private sources, with the Corps and FEMA approving the design and construction, as well as the O&M plan for the levee.

A key to encouraging local and state investment in levee upgrades is to provide incentives for them. Those incentives should increase (sliding cost share) as the level of protection and mitigation efforts at the local and

state level increase. Congress might consider allowing communities to “bank” all or part of proper mitigation activities against the non-federal share of the next disaster in their area.

If Congress is seeking means to stimulate the economy while improving public safety, investment in infrastructure creates jobs, protects health and safety of families and lays the foundation for economic expansion of the generations that follow us. This nation will be one of the fastest growing nations in the world over the next 50 years, with heavy development pressure in many high risk flood hazard areas. Providing the necessary guidance and policy framework to reduce the potentially huge increases in flood damages and catastrophic disaster costs is critical to our economic and social survival.

An added potential source of funding is through private investment funds. I was recently approached by such an investment fund that has experience in providing funding for infrastructure work for communities. This kind of creative financing option has real potential and needs further exploration.

FEMA has a number of disaster mitigation programs which could be better utilized to address a community’s flood mitigation needs. Access to the mitigation programs requires that localities develop a disaster mitigation plan. States and communities could be encouraged to include infrastructure repairs and improvements in their mitigation plans.

Other Related Recommendations

- 1. Federal monies should not place people and structures at risk, nor contribute to the increased flood risk of structures and people.** Many agencies will spend billions in taxpayer monies for efforts to rebuild the Gulf coast. This includes the Corps of Engineers, FEMA, HUD, EDA, EPA and DOT. It is imperative those agencies do not increase flood risk, or cause flood risk to be increased through their actions. Federal Executive Order # 11988 directs all federal agencies to analyze their actions to avoid increasing flood risk by their actions to build, finance or provide technical assistance. We urge this Subcommittee to conduct oversight of each program authorization to assure compliance with this Executive Order.

Conclusion

Indeed, the United States is already lagging behind. The Dutch have been serious for some time now emphasizing high protection levels for urban areas and at the same time implementing a "Room for Rivers" policy of allowing the floodplain to function naturally. More recently the State of California is taking steps to address "deep floodplain" areas behind levees and recognizing that 100-year flood protection is inadequate for developed, urbanized areas. As a nation, we must do better.

The ASFPM represents the federal government's state and local partners in the continuing quest to reduce flood damages and disasters. Today, we once again stand at a crossroads---in the aftermath of a catastrophic flood disaster and in the face of flood maps showing the true flood hazard, with an opportunity for all of us to work together to refine national flood policy that will serve the nation for decades to come. Thank you for the opportunity to provide the wisdom and expertise of our members on these important issues. The ASFPM and our members look forward to working with you as we move toward the common goal of reducing the cost and suffering from flood disasters.

For more information, please contact Larry Larson, ASFPM Executive Director (608) 274-0123 (larry@floods.org),

ASFPM testimony House T&I 4-2-08

Testimony of
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**Federal Emergency Management Agency
Department of Homeland Security**

Presented Before the

**House Transportation and Infrastructure Committee
Subcommittee on Economic Development, Public Buildings, and Emergency Management**

April 2, 2008

Good Morning Chairwoman Norton, Ranking Member Graves, and Members of the Subcommittee. I am David Maurstad, Assistant Administrator for Mitigation and Federal Insurance Administrator for the Federal Emergency Management Agency (FEMA) within the Department of Homeland Security.

I am pleased to be here to discuss national floodplain remapping, FEMA's Mapping Modernization Program, the impact of levees on remapping, and the National Flood Insurance Program. This hearing provides me the opportunity to update you on FEMA's progress in meeting Congressional intent that the Nation's flood map inventory be updated and modernized; to discuss the importance of accurately depicting levees on community flood maps; and to discuss the status of flood maps right here in our Nation's Capital.

The National Flood Insurance Program

Now in its 40th year, the National Flood Insurance Program (NFIP) is the country's largest single-peril insurance entity, with more than 5.5 million policyholders and over \$1 trillion in coverage. More than 20,400 communities across the country participate in the NFIP by adopting and enforcing floodplain management ordinances to reduce future flooding damage. In exchange, the NFIP makes federally backed flood insurance available to homeowners, renters and businesses in these communities. The NFIP is a solid, effective program that helps people and communities:

- Reduce their vulnerability to flooding,
- Recover faster after floods, and
- Protect their investments with a financial backstop.

Flood Insurance Rate Maps

FEMA's Mitigation Directorate is responsible for assessing the flood risks in our NFIP communities, and the data we collect is used to develop and maintain Flood Insurance Rate Maps – called FIRMs – that show these risks. FIRMs show the high flood-risk areas (Special Flood Hazard Areas, or SFHAs) where there is at least a one percent chance of flooding in a given year. However, property owners should not assume there is no risk of flooding just because their structures are located outside the SFHA. In fact, one third of all NFIP claims paid in an average historic loss year are for homes in low-risk areas. It is a requirement for structures located in SFHAs, if financed by federally regulated or federally insured lending institutions, to have flood insurance. In addition, Federal agencies that provide various forms of financial assistance for buildings in SFHAs must also require flood insurance. The maps also show low-to-moderate risk areas with a less than one percent annual chance of flooding.

The inventory of over 92,000 paper FIRMs has been a critical element of the NFIP, serving as a land-use planning and floodplain management tool for communities nationwide and helping the Program establish and maintain a fair and accurate insurance rating system. Because flooding is the Nation's most common natural hazard event – with erosion, land-use, and natural forces constantly changing water flow and drainage patterns – it is vitally important that these maps provide the most up-to-date, accurate flood risk data available. This is why the Flood Map Modernization (Map Mod) Program was established in 2003.

Flood Mapping Modernization Program

The Flood Mapping Modernization Program's mission is to help protect lives and property through modernized and easily maintainable flood hazard data for all NFIP communities. A collaborative effort among FEMA and its partners, Map Mod is combining historical and current data with state-of-the-art technology to replace paper FIRM panels with modern, digitized maps. These new digital FIRMs can clearly depict – faster and more accurately than ever before – the dynamic landscape conditions that affect important flood insurance and floodplain management decisions. Map Mod will give the NFIP and the Nation's communities a reliable planning and floodplain management resource for years to come. Just as importantly, FEMA will be able to quickly update digital FIRMs to clearly reflect changing conditions that impact flood risk, providing valuable support to the NFIP's continuing effort to accurately and fairly set flood insurance rates. Map Mod's digital products will serve as a vital foundation for local flood hazard awareness, land-use planning, floodplain management, evacuation planning, and flood insurance rating. FIRMs are used more than 30 million times a year by builders, lenders, realtors, insurance agents, community planners, local government officials, homeowners, and others.

Map Mod's objective – to map 65 percent of the Nation's land area, where 92 percent of the population lives – is within reach. FEMA has over 1,400 county-wide mapping projects underway in every region of the Nation. We anticipate hitting this target in 2010, with a full arsenal of state-of-the-art, digital maps that will reflect the most current data available about community floodplains, including areas situated behind levees.

Levee Accreditation

Accurately depicting areas impacted by levees is critical for FEMA and communities. The Agency estimates that nearly 1,050 (33 percent) of the 3,147 counties nationwide, and nearly 700 (22 percent) of the 2,424 counties being remapped in Map Mod have levees shown on their effective FIRM. Moreover, Map Mod is encountering communities that are not able to readily provide us with data about the design, construction, and operation of levees – including levees that were previously shown on FIRMs as protecting against the one-percent-annual-chance flood.

This is where I must underscore FEMA's role in the Nation's levee arena:

- We establish appropriate risk zone determinations and reflect these determinations on the FIRMs.
- We establish mapping standards, and we rely on levee owners and communities to provide the information we need to clearly represent, on FIRMs, the flood risks of areas behind levees.
- We do not implement or fund the design, construction, operation, maintenance, or certification of levee systems.
- We do not examine or evaluate levees.
- We do not determine how a structure or system will perform in a flood event.

What does FEMA do? We are charged with determining the appropriate flood risk designations for areas behind levees and accurately depicting these flood risks on flood hazard maps. The effort to identify risk levels in areas impacted by levees depends on FEMA receiving the appropriate certification data and documentation, as defined in the Code of Federal Regulations, from the proper authority. We require the submission of this “certification” information from the States, communities or individuals who own and operate the levees before we can accredit the levee with providing protection from the 1-percent-annual-chance flood. A certified levee is one that meets the certification criteria described in the Code of Regulations and the certification itself must be accomplished by either a registered professional engineer or a Federal agency with levee design and construction qualifications such as the USACE, Natural Resources Conservation Service (NRCS), Tennessee Valley Authority (TVA), U.S. Bureau of Reclamation (USBR), or International Boundary and Water Commission (IBWC). If all the necessary certification data and documentation are provided to FEMA, the FIRM can show the levee as accredited. Levee Accreditation is the process of showing the levee on a flood map as providing protection from the 1-percent-annual-chance or greater flood. The area landward of an accredited levee is shown as an “area of moderate risk” on the flood map, rather than a Special Flood Hazard Area. Moderate risk areas are the areas between the limits of the 1-percent-annual-chance flood and the 0.2-percent-annual-chance flood (500-year). Flooding is still possible in “moderate risk” areas so flood insurance is strongly recommended; however, premiums cost less on average in moderate risk areas.

When owners/operators of uncertified levees do not provide FEMA with certification documentation, a FIRM will not show the levee as providing protection against the 1% annual flood. To do otherwise would be misleading because it would not reflect the true risk level in the areas behind uncertified levees.

As FEMA works within map modernization to assess the flood risks associated with levees, the Agency usually encounters one of the following three scenarios:

- (1) First, a FIRM shows a levee as providing one-percent-annual-chance protection and the levee owner and/or community provides the documentation required to allow the FIRM to continue showing this designation. In such cases, FEMA will continue to map the area behind the levee as an area of moderate risk. A special note will be placed on the FIRM, notifying the community of the levee’s status, the possibility of failure, and encouraging the purchase of flood insurance, although it is not required for Federal purposes. If information later surfaces indicating that the levee does not provide at least one-percent-annual-chance protection, FEMA will revise the FIRM accordingly.
- (2) Another common scenario occurs when a FIRM shows a levee as providing one-percent-annual-chance protection, but the documentation required to allow the FIRM to continue showing this designation is missing or unavailable. In these situations, if FEMA has sufficient evidence that the levee is providing one-percent-annual-chance protection, the Agency will designate the levee as “Provisionally Accredited.” This designation allows the FIRM to continue depicting the area behind the questioned levee as an area of moderate risk for an interim period of 24 months – giving levee owners time to gather and submit required data. During this interim period, a special note will be placed on the flood maps, notifying the community of the levee’s “provisional” status, the possibility of failure, and encouraging the purchase of flood insurance. If the required data is not provided within 24 months, the FIRM will be revised to reflect scenario 3 below.
- (3) A third situation arises when a FIRM shows a levee as providing one-percent-annual-chance protection to the area behind it, but evidence indicates that the levee or levee system no

longer provides such defense. For example, if a levee receives poor ratings on a recent inspection, a new FIRM will depict the area behind the levee in question as a Special Flood Hazard Area.

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The Washington, D.C. Flood Insurance Rate Map

I would now like to update the Subcommittee on the status of the Washington, D.C., Flood Insurance Rate Map.

In January, 2007, the U.S. Army Corps of Engineers Baltimore District issued letters to the National Park Service and the District of Columbia government regarding levee deficiencies in the DC-Potomac Park areas. In March, 2007, FEMA Region III issued a notification letter (addressing scenario (3) above) to Mayor Fenty, advising that FEMA had issued revised preliminary map panels.

Over the spring and summer of 2007, FEMA Region III coordinated with the National Park Service and the Corps to better delineate boundaries behind the Potomac Park levee areas and to issue a second set of revised preliminary map panels. The levee along the National Mall is on land under the jurisdiction of the National Park Service; however, the Corps has been the agency responsible for ensuring the levee provides the necessary protection against the 1% annual flood and has requested funding in the past for this purpose. By statute, FEMA provides a formal 90-day appeal period whenever Base (1-percent-annual-chance) Flood Elevations (BFEs) are proposed for a community. During the appeal period, affected property owners and other citizens in the community have the opportunity to submit technical and/or scientific data to support an appeal of the proposed BFEs. FEMA published a notice in the Federal Register on September 26th soliciting public comment. The 90-day appeal period for the revised preliminary FIRMs began on October 5, 2007. Prior to the January 3, 2008 deadline, after the preliminary maps were published in the Federal Register, the National Capital Planning Commission (NCPC) contacted FEMA requesting additional information, expressing concern over the floodplain delineations, and suggesting that the federal agencies and the District needed a constructive, coordinated solution. NCPC also discussed the proposed floodplain maps at its January 3rd Commission meeting, a regularly scheduled public meeting and submitted comments that included technical information to District of Columbia officials and FEMA by the January 3rd deadline. Region III postponed further processing until March 26, 2008.

FEMA has and will continue to coordinate with the District of Columbia, NCPC, the National Park Service, and the U.S. Army Corps of Engineers to address outstanding issues, to develop a strategy to finalize Washington, DC's FIRMs, and to ensure the necessary measures are in place to protect against flood risks. Recently, on March 25, 2008, FEMA formally responded to a March 20, 2008, letter from the District of Columbia, further expressing concerns surrounding this situation. FEMA's March 25, letter articulated its continued commitment to protect citizens, businesses, and institutions from the flood hazard while expressing FEMA's optimism in working together with the District of Columbia in outlining a collaborative solution for this unique situation. FEMA issued a Letter of Final Determination to the District of Columbia on March 26, 2008.

FEMA cannot accredit the Potomac Park levee as meeting the one-percent-annual-chance protection standard until it receives appropriate technical documentation indicating that meets this standard. However, once FEMA receives documentation that the Potomac Park levee complies with certification requirements, FEMA can quickly prepare a revised map for the District of Columbia that shows protection against the one-percent-annual-chance flood and reduces the Special Flood Hazard Area.

Finally, an important aspect to remember, not only for the District of Columbia, but also for the rest of the nation, is that there is a residual risk of flooding from a greater than the 100-year flood, or from a

flood that the levee is not designed to control. In addition, there are often interior drainage system deficiencies that occur during heavy rainfall events. In fact, the NCPD recognized this issue in its January 2008 "Report on Flooding and Stormwater in Washington, DC."

Conclusion

FEMA, the Mitigation Directorate, the NFIP, and Map Mod will continue working with the Corps and our other Federal, State, and Local government partners to communicate the true and current flood risk for Americans in their homes, and their places of education, work, worship and gathering. We have both a legal and moral responsibility to depict that risk accurately and we are committed to upholding our responsibilities.

A major part of this responsibility involves examining how structures designed to contain floodwaters, such as levees, actually work and whether they will perform the way they are expected to. Recently, we have seen numerous examples of how aging infrastructure fails – with catastrophic results. We understand that our work is not always popular – some communities would rather we not examine their true risk, or that we not communicate it. But if we choose to look the other way when it comes to flood risks, the tools that people need to make decisions will not be developed; our agency will not be able to meet our mandated map production deadlines; communities will not receive data they need to make smart land-use decisions; our ability to administer the NFIP is threatened; and people living and working in higher-risk areas will have less-than-full information about the risks they face.

That said, FEMA is doing all it can to make sure that the risks in communities are properly documented and communicated. We will make sure that those with property in higher-risk areas know they are at risk and know about the financial safety net the NFIP offers them. Communities and citizens also have a role to play. Communities must admit that some areas are riskier than others to build on and live in – and leaders in those communities must take responsibility for ensuring that their citizens are safe – despite the costs. Americans must also take advantage of the numerous resources available to educate themselves about the risks they face as well as the options available to them to mitigate those risks. FEMA and the NFIP will continue to lead the Nation in this team effort. Thank you for the opportunity to testify before you today, and I will be pleased to address any questions that Members may have.

Testimony to the
House of Representatives
Subcommittee on Economic Development, Public Buildings and Emergency Management
by
Les Sterman
Executive Director, East-West Gateway Council of Governments
St. Louis, Missouri-Illinois¹

Madame Chair and members of the Committee, my name is Les Sterman and I am Executive Director of the East-West Gateway Council of Governments, a partnership of local governments in the St. Louis, Missouri-Illinois metropolitan region. Thank you for inviting me to talk to you about a subject that is critically important to the citizens and businesses of our region.

The St. Louis region is at the confluence of the Mississippi and Missouri rivers. A large portion of our region's land area is protected by levees and other flood control facilities, some of which have been in place since the 1920's. Entire communities owe their existence and prosperity to these great rivers and the protection from flooding that we have carefully built. About half a million people live in the Illinois portion of our region, and we now know that about 150,000 of them are in imminent economic and physical peril. About 4,000 businesses will find themselves in the same unenviable position. In short, the future of a very large portion of our region is now in jeopardy.

Last August 15, Congressman Costello hosted a "levee summit" in our area so that public officials could hear from the Corps of Engineers and the Federal Emergency Management Agency about the impending effects of the National Flood Plain Remapping Program on our region. Corps representatives revealed for the very first time that they could not recertify that the levees along the Mississippi River in Illinois would withstand a 100-year flood event. This would mean that the entire area known as the American Bottom would be remapped as a "special flood hazard area" and would, for the purposes of flood insurance, be considered at high risk of flooding. Population centers like the City of East St. Louis and industrial communities like Granite City and Wood River would be at risk.

Like many older industrial cities, St. Louis has struggled to regain its economic footing in recent years. In Illinois, we are experiencing an economic rebirth through reinvestment in manufacturing facilities and brand new investments in transportation and distribution businesses. This new real economic growth, which has local and national significance, could now be stillborn. Long-awaited, but now imminent expansion of industries like U.S. Steel and Conoco-Phillips, worth literally billions of dollars in actual construction, is now on hold. New development has simply stopped dead in the American Bottom.

Perhaps most troubling, the American Bottom is home to some of the poorest and most physically and economically vulnerable citizens in our region. For most of them, flood insurance is not a realistic option at any price, and without flood insurance they will be unable to get a mortgage, unable to buy or sell a home, and unable to recover from a catastrophic loss from a

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flood. While we are reaching out to these citizens, it is very hard to know what useful advice the federal government or we might give them.

Let me assure you that we take these actions by FEMA and the Corps very, very seriously. Since August 15 we have mobilized our local governments, who are very quickly taking unprecedented, cooperative steps to rebuild our flood control systems along the Mississippi River. Legislation was introduced just last week to impose a sales tax in three Illinois counties to raise as much as \$180 million for these repairs. We are meeting constantly with the Corps and the four levee districts that are responsible for building and maintaining levees. We have held a number of large meetings with local officials, citizens and businesses to help them prepare for the consequences of remapping. Our goal is to rebuild our flood control systems in five years or less, an enormously challenging job, but one that simply must be done.

At the same time as we are pulling together to protect our citizens and our economy, we are troubled by a number of serious concerns about how this situation has unfolded and the future participation of the federal government in helping us rebuild.

1. While the remapping process has been underway for some time, the revelation of the levee deficiencies was both sudden and shocking to local officials in our area. Apparently, conversations with FEMA have been taking place, but in a relatively obscure way, so that nobody in responsible authority knew the implications of remapping. Further, the Corps' findings that trigger the dire consequences for us were only first known by FEMA a few days before our August 15 meeting. Public officials want to do the right things to protect the safety and livelihood of their citizens, but to ask them to fix a \$180 million problem in less than a year, especially one they didn't even know about, is not reasonable.
2. The same system of levees, flood gates, relief wells and other facilities withstood historic floods in 1993 and again in 1995. The magnitude of these floods far exceeded the 100-year flood that is now used as the standard for certification in the remapping process. To fend off the rising waters, our levee districts used floodfighting techniques that they have used for 80 years. They sandbagged around sandboils, piled soil and rock behind floodgates, and generally used well-practiced and accepted methods to protect the integrity of the flood control system. The standards now used by FEMA no longer account for floodfighting measures as offering any measure of protection. This one simple, and possibly unnecessary, change of rules has led directly to the result that is creating a crisis in so many communities along rivers in this country.
3. The levees in our area are "federal" levees. They were built by the federal government and maintained by local governments. The rebuilding effort could be aided, under current law, by federal-funding of between 65% and 100% of construction costs. This may be an empty promise, however. The need is so great, and the federal budget so stressed, that it would take years, if ever, before we received sufficient funding to rebuild, and during that time our citizens would be at risk and our economy under water. There is a clear national interest in flood protection, but the federal government is *de facto* abandoning its responsibility under the law.

4. The manner in which the remapping process is unfolding across the country leads to some irrational and very unfair outcomes. Our area, for example, is bisected into two FEMA regions, which are proceeding along different schedules in the remapping process. The remapping in Missouri is as much as three years behind that in Illinois. The citizens of Illinois, who will suffer truly draconian outcomes from this process, will look a couple of hundred feet across the Mississippi River at their counterparts in Missouri, who will suffer no such outcomes. This is a federal process and it should be applied to all of our citizens equally, especially where they live as neighbors. Congressman Costello sponsored an amendment to the National Flood Insurance Reform and Modernization act (H.R. 3121/S. 2284) that rectifies this injustice. The bill passed the House and is now pending in the Senate. We strongly urge its passage with the Costello amendment included.

Like FEMA, we absolutely believe that we have the important responsibility to make our citizens aware of flood risks. Hurricane Katrina taught us that lesson. At the same time, however, we have to work together in a responsible way to reduce those risks, without compounding the problem by putting people and entire industries in immediate economic jeopardy. We don't ever want to create a situation where well intended, but man-made, government action is creating hardship every bit as threatening as the acts of God that we want to protect against.

Thank you for the opportunity to testify. I would be pleased to respond to any questions from you or other Members of the Subcommittee.

UNITED STATES ARMY CORPS OF ENGINEERS

COMPLETE STATEMENT

OF

**STEVEN L. STOCKTON
DEPUTY DIRECTOR OF CIVIL WORKS**

BEFORE THE

**SUBCOMMITTEE ON ECONOMIC DEVELOPMENT, PUBLIC BUILDINGS
AND EMERGENCY MANAGEMENT**

**COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE
UNITED STATES HOUSE OF REPRESENTATIVES**

ON

**THE CORPS ROLES AND RESPONSIBILITIES
IN THE NATIONAL FLOOD PLAIN REMAPPING EFFORT**

April 2, 2008

CECW-ZB
441 G Street, NW
Washington, DC 20314
202-761-0099

Madam Chairwoman and distinguished members of the Subcommittee:

Thank you for the opportunity to testify before the Subcommittee and to present information on the roles and responsibilities of the U.S. Army Corps of Engineers (Corps) in the national flood plain remapping efforts.

Before I discuss the details of the Corps efforts, I believe it would be of value to give an overview of our broad roles and responsibilities.

Overview of the Corps Role and Responsibility in Flood Management

The Corps shares with the U.S. Department of Homeland Security's Federal Emergency Management Agency (FEMA), both the expertise and mandate to address the nation's vulnerabilities to flood related disasters and damages. Since passage of the Flood Control Act of 1936 established a federal role in flood management, the Corps authorized responsibilities have expanded to include developing structural and non structural solutions to managing flood risks, inspecting the condition of existing flood management infrastructure, providing technical and planning support to states and communities, conducting advance emergency measures to alleviate impending flooding, and rehabilitating levees and other flood management infrastructure damaged by flooding. Since 1936 the Corps has completed approximately 400 major lake and reservoir projects, emplaced over 8,500 miles of levees and dikes, and implemented hundreds of smaller local flood management projects.

In recent years the Corps has placed an increasing emphasis on nonstructural approaches to flood management. Nonstructural alternatives focus on efforts and measures to reduce flood damages in an area by addressing the development in the flood plain. Alternatives include such measures as flood plain zoning, participating in the National Flood Insurance Program (NFIP), developing and implementing flood warning systems (coordinated with the National Oceanic and Atmospheric Administration's (NOAA's) flood warning program) and emergency evacuation plans, and floodproofing individual structures as well as removing structures from the extreme flood hazard areas.

The Corps can provide flood management technical or emergency assistance through a wide variety of authorities and programs. For example, through its Flood Plain Management Services Program (FPMS), the Corps can provide information, technical assistance and planning guidance (paid for by the federal government) to states and local communities to help them address flood management issues. Typical focus areas are flood hazard evaluation, dam break analysis, flood warning preparedness, flood plain management and much more. In cases where flooding is imminent in a specific area, the Corps is authorized to take immediate advance measures to protect life and property, such as constructing temporary flow restriction structures and removing log debris blockages.

The responsibility for managing the Nation's flood risks does not lie exclusively with Federal agencies, such as the Corps and FEMA. Rather, it is shared across multiple federal, state, and local government agencies with a complex set of programs and authorities, including private citizens and private enterprises such as banking and insurance industries, as well as developers.

Both the Corps and FEMA have programs to assist states and communities reduce flood damages and promote sound flood risk management. However, the authority to determine how land is used within flood plains and enforce flood-wise requirements is entirely the responsibility of state and local government. Flood plain management choices made by state and local officials can impact the maximum effectiveness of federal programs to mitigate flood risk and the performance of federal flood damage reduction. However, the federal investment is protected by the execution of agreements between the federal and non-federal partners.

One key challenge for our nation is to ensure the public is educated both as to the flood risks they face and to the available actions they can take to reduce their risks. Because of this complex arrangement of responsibilities, only a collaborative approach will enable communities to effectively reduce risks from flooding.

The Corps Roles and Responsibilities in the Map Modernization Program

Both the Corps and FEMA have a long history of partnering on flood plain mapping as part of the NFIP. Over the past 30 years, the Corps has completed over 3,000 studies for FEMA related to identifying the flood potential of various areas across the country. These studies involved activities such as flood plain delineations and detailed flood insurance studies. In August 2005, both agencies signed an agreement that further streamlined the process for the Corps to provide flood plain mapping and other related services to FEMA.

FEMA has embarked on a program, known as the Map Modernization Program (MapMod), to update and improve the nation's Flood Insurance Rate Maps (FIRMs). This current nationwide program has provided an excellent opportunity for our agencies to strengthen our working relationship. As a result, we have been very successful through MapMod in leveraging data, partnering on flood plain studies, collaborating on related policy changes and jointly communicating flood hazard information to the public. The Corps is also working with NOAA to ensure that the Corps projects have vertical controls tied to the National Spatial Reference System and that elevations are consistent with FEMA map modernization efforts.

The Corps cooperates with FEMA and other federal, state and local agencies through numerous avenues in support of FEMA's remapping program. These include,

- Providing data collected from previous or current Corps studies such as hydraulic and hydrologic models and topographic mapping;

- Performing new flood plain mapping studies or providing technical assistance directly for FEMA or through partnerships with state and local governments under the FPMS Program or Planning Assistance to States (PAS) Program;
- Providing available levee information collected through the Corps Levee Safety Program. This includes the development of the national levee database and improved levee inspection program;
- Performing or supporting levee certification when possible; and
- Conducting more detailed flood damage reduction studies through our cost-sharing processes in order to evaluate an array of alternatives to reduce flood risk; thus, influencing how the area would be remapped in the future.

The Corps Role in Levee Certification

Levee certification is a technical finding for the NFIP that concludes there is reasonable certainty the levee protecting the area will contain the base (1% annual chance exceedance) regulatory flood. The certification finding must be accomplished by either a registered professional engineer or a Federal agency with levee design and construction qualifications such as the Corps, Natural Resources Conservation Service, Tennessee Valley Authority, U.S. Bureau of Reclamation, or International Boundary and Water Commission.

The responsibility for seeking levee certification and funding the certification effort is generally that of the agency with jurisdiction over the flood plain in question. The agency may perform the certification analysis, or may request such technical determination by others.

The Corps has had and continues to have a major role in the planning, design and construction of many levee systems throughout the Nation. Through the MapMod Program, FEMA realized that mapping areas behind levees needed special attention. Both agencies have worked closely to coordinate policies related to levee certification for the remapping program. These policies include,

- FEMA Procedure Memorandum No. 34 (PM No. 34) – *Interim Guidance for Studies Including Levees*, which clarifies it is the levee owner or community's responsibility to document the levee meets the NFIP requirements for 1-percent-annual-chance flood protection;
- FEMA Procedure Memorandum No. 43—*Guidelines for Identifying Provisionally Accredited Levees*, which establishes procedures and timelines for provisionally accrediting some levees and levee systems;
- The Corps Maintenance Deficiency Correction Period policy, which provides a one year timeframe for qualifying levees to correct maintenance issues and links directly to FEMA's Provisionally Accredited Levee policy; and,
- The Corps Engineer Technical Letter (ETL 1110-2-570), which describes the process the Corps will use when performing a levee certification for NFIP purposes.

As part of the remapping process, FEMA must verify that all levees recognized as providing protection from the base flood meet the requirements outlined in Title 44 of the Code of Federal Regulations, Section 65.10 (44 CFR 65.10), *Mapping of areas protected by levee systems*.

In some instances, the Corps is being requested to either conduct or support levee certifications. While the Corps does not have an authority that specifically addresses levee certification for NFIP purposes, a number of authorities have been determined to be applicable. The Corps has authorities and funding mechanisms to perform certifications, when requested, on levees that,

1. The Corps operates and maintains. The Corps is responsible for certification and would be based on availability of project or operation and maintenance funds.
2. Levees in the Corps Inspection of Completed Works (ICW) Program. These include levees designed and built by the Corps but operated by a local non-federal sponsor. The certification may be funded via ICW funds, if available. Otherwise, funding must be provided by the requester. There is no ICW funding available for certifications in FY2008.
3. Levees in the Corps Rehabilitation and Inspection Program (RIP). This includes non-federal levees which meet RIP criteria, have been accepted into the program and are currently in active status. The certification must be funded by the requester.
4. Upon request, the Corps has authority to certify levees for projects constructed by other Federal agencies. Certification must be funded by the requesting Federal agency.
5. Levees currently part of an ongoing project or study. Certification may be funded using project appropriated funds.

The Corps does not have authority to certify levees for non-federal projects that are not within a Corps program or part of an ongoing Corps study or project. As stated above, the responsibility for seeking levee certification and funding the certification effort rests with the agency seeking certification.

The Corps has authority to provide technical analysis and support, but not a final levee certification, for any levee through the FPMS Program subject to availability of appropriated funds or voluntary contributions from the requester.

The Corps levee certification procedures for the NFIP are procedures that have existed since 1997. The first Corps national guidance for its participation in performing levee certification determinations was released in April 1997 and was entitled – "Guidance on Levee Certification for the National Flood Insurance Program." That guidance was reaffirmed in June 2006. To become more consistent and diligent within the Corps, in September 2007, we issued an Engineer Technical Letter (ETL) for levee certification. This ETL describes the process that the Corps will use when performing a levee certification and was based on existing policy and procedures.

The Corps Future Direction to Manage Flood Risk

Before closing I believe it will be beneficial for you to understand the Corps vision, strategy, initiatives, and future direction to address the fundamental challenge of managing the nation's flood risk in cooperation with FEMA and others, of which Map Mod is one management component.

Traditionally, a major focus of Corps efforts to address flooding hazards has been through projects to decrease the probability of flooding through the construction of levees or other flood management infrastructure. Today, the Corps is focusing on the most effective combination of tools available that citizens may use to lower or "buy down" their flood risk. We will consider not only reducing the probability of flooding, but also reducing the consequences should a flood occur. Furthermore, the decision on which tools to implement involves all stakeholders. For example, the Corps can help reduce risk by building levees, whereas in a coordinated but independent action, local government can further reduce flood risk by implementing flood plain management actions such as evacuation plans, zoning ordinances and public outreach.

This cannot be achieved without a new paradigm of joint partnerships in a comprehensive approach of public education and flood risk management.

Actions for Change

The Corps has embarked on an ambitious program to incorporate the lessons learned from Hurricanes Katrina and Rita into "Actions for Change," a major change initiative to transform our planning, design, construction, and operation and maintenance principles and decision-making processes. Key elements of the program are changes that will enhance the way the Corps uses risk to guide decision making and ensures that all stakeholders understand the risks associated with projects. The four main focus areas include:

- Comprehensive Systems Approach
- Risk Informed Decision Making
- Communication of Risk to the Public
- Professional and Technical Expertise

We will review the work we are doing and try to find ways to refocus, redirect and redouble our efforts to meet the objectives set in each of these focus areas. The Corps has already made great strides towards achieving these objectives within the following initiatives:

National Flood Risk Management Program

In the United States, the responsibility for managing flood risks is shared across the Federal, state and local levels of government and the private sector. In the absence of continuous collaboration, conflicting policies, programs and interests from multiple

layers of government can work at cross purposes and undermine efforts to improve flood risk management nationwide.

For this reason, in May of 2006, the Corps implemented the National Flood Risk Management Program (NFRMP). Its purpose is to integrate and synchronize the ongoing, diverse flood risk management projects, programs and authorities of the Corps with counterpart projects, programs and authorities of FEMA, other federal agencies, state organizations, and regional and local agencies.

Integrated Ocean and Coastal Mapping

Another NFRMP contribution is the interagency effort underway to coordinate more effectively on mapping in the coastal zone to conserve taxpayer resources and gain multiple uses out of every mapping dollar spent. The Corps, NOAA, USGS, and MMS, co-chairs the Interagency Working Group on Ocean and Coastal Mapping – which includes FEMA and other federal coastal mapping agencies, under the governance of the Joint Subcommittee on Ocean Science and Technology (JSOST) -- with the goal of avoiding duplication of coastal mapping activities and facilitating the coordination and leveraging of mapping resources across the federal sector and with state, industry and academic mapping interests.

Shared Vision Planning

Since the 1980s, the Corps and the nation have faced water resource conflicts and learned that these conflicts require the cooperation of many agencies, levels of government and the people whose lives are affected. The Corps has learned how difficult it is to reach consensus and take action under those conditions, and so have worked with its partners to develop a collaborative approach to technical analysis called Shared Vision Planning.

In Shared Vision Planning, decision makers, experts and stakeholders work together to build a computer model that captures the collective vision of the problems and solutions. By letting people build a picture of how flooding will affect their lives and how solutions will reduce risks, they have more understanding and trust in the analysis and potential solutions. It helps develop a shared vision of the problem and the potential solutions.

In addition to various Corps projects around the country, we are presently working with the state of California's Department of Water Resources and its partners to apply the Shared Vision Planning concepts to state water planning, including intersection with flood risk management. Under Actions for Change, the Institute for Water Resources is currently conducting a study as part of Shared Vision Planning and NFRMP to develop a framework and tools for improved public involvement in flood risk management planning and decision-making.

Levee Safety Program

In November 2007, the Corps officially established a Levee Safety Program, an important step forward to ensure the public is aware of the risks associated with levees in Corps programs. The mission of the program is to assess the integrity and viability of levee systems and recommend actions to ensure these systems do not pose unacceptable risks. The main objectives are to hold public safety paramount, reduce adverse economic impacts, and develop reliable and accurate information.

Within the program, a National Levee Database has been created to serve as a national source of information to facilitate and link activities, which include flood risk communication, levee certification, levee inspection, flood plain management, and risk assessments. The database presently includes levees within a Corps program or FEMA's NFIP. WRDA 2007 extended the Corps authority and allows the inclusion of all non-federal levees on a voluntary basis. The non-federal levee data will be provided to the Corps at no cost to the federal government. Also, a methodology for performing technical risk assessments of existing levee infrastructure is under development to serve as a consistent risk based framework to evaluate levees nationally. Additional activities within this program include the creation of national teams to focus on developing new policies in other areas concerning levee safety, such as inspections of existing levee systems in a Corps program, verification or establishment of existing geodetic control, minimum standards for new levee systems and interim risk reduction measures. Key policy issues in which close collaboration between the Corps, FEMA, and other stakeholders is necessary relate directly to the Levee Safety Program. Specifically, these areas include levee inventory, mapping the flood hazard, inspection and assessment of levees, operation and maintenance of levees, and emergency response and evacuations.

Intergovernmental Flood Risk Management Committee

The Intergovernmental Committee for Flood Risk Management has held quarterly meetings since August 2005, for the purpose of providing FEMA and Corps leadership an opportunity to coordinate programs and policies, and thus improve program implementation for the flood risk management community. Additionally, the quarterly meetings have provided an opportunity for two groups representing state and local government agencies with flood risk management responsibilities, the Association of State Flood plain Managers and the National Association of Storm and Floodwater Management Agencies to provide both FEMA and the Corps direct feedback on specific policy and implementation issues faced at the state and local level. This collaborative effort has been very successful in helping the Corps and FEMA to understand the non-federal perspective and to integrate and align Corps and FEMA programs.

To date, the group has focused primarily on coordinating the Corps NFRMP with the FEMA MapMod. This collaboration is needed to ensure compatibility between Corps and FEMA programs and thus improve program implementation for the non-federal flood risk management community.

While still retaining a focus on MapMod collaboration during the upcoming five years, the committee will also expand its scope to identify and address other policy and program issues requiring improved collaboration. As needed, the committee will also coordinate with other federal agencies. For example, improving risk communication is one subject area in which the Committee will likely seek to engage the federal agencies that provide flood information, such as NOAA and the U.S. Geological Survey. These agencies are involved in efforts to communicate better this flood risk information to the public and to decision makers.

Silver Jackets Program

The Corps is cooperating with FEMA and other federal agencies through the Silver Jackets Program to create interagency teams at the state level to develop and implement solutions to state natural hazard priorities. The Silver Jackets Program's primary goals are to leverage information and resources, improve public risk communication through a united effort, and create a mechanism to collaboratively solve issues and implement initiatives. To date, the Silver Jackets Program has initiated pilot programs in Ohio, Indiana and California. These teams have succeeded not only in improving communication, but also in leveraging resources and programs between federal agencies.

Public-Private Partnerships

The Corps is seeking partnerships to share data and risk model development with those that best understand risk, such as the banking and insurance industries. For instance, the insurance industry has a similar goal of assessing hazards and therefore, there exists an opportunity for the federal government and insurance industry to leverage mutual efforts, such as in the areas of research and development, implementation of assessment tools, and increase of public and policy-makers awareness. The Corps also seeks to collaborate more closely with business councils and developers so they understand local flood risks and can assist us in public education campaigns.

Closing

Madam Chairwoman, thank you for the opportunity to testify today on the Corps roles and responsibilities in FEMA's remapping program and our broader mission of assisting in the reduction of flood risk for the nation. I will be pleased to answer any questions you may have.

**Testimony by
Paul Fillebrown, Director of Public Works, Merced County, CA
Before the Economic Development, Public Buildings and Emergency
Management Subcommittee
The Practical Impact Associated with FEMA's National Flood Plain Remapping
2167 Rayburn HOB
April 2, 2008
9 AM**

Thank you chairwoman Norton for holding this very important hearing---and thank you for the opportunity to provide testimony on the practical impact associated with FEMA's floodplain remapping.

Merced County has been heavily engaged in the FEMA remapping process. To date, Merced County has currently received and reviewed its second draft set of digitized FIRMs. Comments have been submitted for the second set, but we have yet to receive a response.

Digitizing existing firm maps is a large undertaking by itself and FEMA should be commended for the massive amount of work completed but also the very thorough job they did of notifying public agencies and officials of the process.

Having now reviewed two draft sets of FIRM panels and experienced the comment review process with FEMA, I would like to offer a few observations, comments, and suggestions.

First, it's important to acknowledge that FEMA made a major and successful outreach effort informing local agencies and officials of the remapping program and of the levee review/de-certification process.

Second, FEMA did review and respond in a timely manner to comments submitted by local agents.

Third, when it was clear that some issues still could not be resolved, FEMA did take additional steps to address and resolve concerns.

However, Merced County does have a number of concerns associated with FEMA's remapping. The preparation of digital maps, while a great idea, was combined with the process of reviewing and decertifying levees. This complicated the process of reviewing the draft maps. In Merced County's case, significantly large, populated additional areas of flooding were shown on the preliminary FIRM panels for the Merced area. No studies, calculations or data were provided to support the inclusion of these additional areas.

Three such significant areas were delineated on the first set of preliminary FIRM panels. Merced County was successful in working with FEMA to get two of these

areas eliminated from being delineated as flood hazard areas. However, the third area (between the Cities of Atwater and Merced) remains on the second submittal of the preliminary FIRM panels.

While FEMA has tried to work with locals, it's clear they are working within a very tight deadline to achieve adoption of all of the new digital FIRM panels. Merced County believes that this has caused shortcuts to be made. If this project only involved the digitizing of existing maps, then the new map would simply be a digital version of the existing maps.

However, this is not the case. Due to the review and de-certification of levees by FEMA, large areas are being shown as being subject to flooding. In the case of Merced County this will affect hundreds of homes, many of whom are owned by individuals or families who can not afford the added cost of flood insurance.

Understanding the magnitude of this project, Merced County offers the following suggestions.

First, no new areas of flooding should be added to or shown on the new digital maps unless, at the time of review, FEMA can provide the local agencies with detailed backup information in the form of calculations, computer modifying, assumptions and modeling results to support the changes. These materials should be made available to local agencies upon their request. If a review of these materials is undertaken by a local agency, 30 days is simply not sufficient.

Secondly, should new or increased flood hazard areas be created, FEMA should develop and approve a process to allow the "phase-in" of flood insurance requirements and/or insurance premiums to allow newly affect homeowners to gradually accept these new and significant costs consistent with legislation introduced by our own representative, Congressman Dennis Cardoza.

If you have questions or if I can be of further assistance please do not hesitate to contact me. Again, thank you for the opportunity to provide these comments.